

**OECD Reviews of Vocational  
Education and Training**

**A Learning for Jobs Review  
of the Czech Republic**

**Małgorzata Kuczera**





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# **A Learning for Jobs Review of the Czech Republic 2010**

Małgorzata Kuczera



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## Summary: strengths, challenges and recommendations

This review of vocational education and training (VET) in the Czech Republic is part of “Learning for Jobs”, the OECD policy study of VET, a programme of analytical work and individual country reviews designed to help countries make their VET systems more responsive to labour market needs. The review of the Czech Republic assesses the main challenges faced by the VET system and presents an interconnected package of six policy recommendations. Each recommendation is described in terms of the challenge, the recommendation itself, supporting arguments, and issues of implementation.

### *Strengths*

The Czech VET system has a number of strengths:

- The average academic level of 15 years-old measured by PISA is good (Figure 2.1c, 6.1c, 6.2c in OECD 2007a, Vol. 2).
- The majority of students complete their upper secondary studies; the dropout rate from this level of education is below the OECD average (Table A2.1 OECD, 2008b).
- The Czech Republic has a very impressive data base on education and labour market outcomes of education, one of the best the OECD team has seen.
- Many reforms have been launched recently, including: the setting up of a new qualification system; the introduction of a national standardised exam in apprenticeship programmes, the launch of a major new adult education initiative, and new tools to improve career guidance.
- The government is actively fostering stronger participation of social partners in VET. Sector Councils provide a good example of the co-operation between social partners and policy makers.

### *Challenges*

At the same time the system faces a number of challenges:

- The performance of students and the quality of teaching in apprenticeship programmes (*střední odborné učiliště – SOU*) is low in comparison to general and technical programmes (*střední odborné školy - SOS*) leading to the matura exam.
- Governance of upper secondary VET at regional level lacks the transparency and accountability mechanisms that would ensure a match between labour market demand and student choice, and secure quality standards across the country.

- The provision of training is highly variable in terms of the number of students participating, length and quality; it depends on the sector and individual schools. The participation of companies in work place training provision is low.
- The institutional system for social partners' involvement in VET is fragmented. Not all VET related areas are subject to social partners' consultation.
- Initial and in-service education and training of upper secondary school counsellors focuses more on pedagogical and psychological counselling than on career guidance. School counsellors combine career guidance with other roles: teaching other school subjects, and providing counselling and guidance for personal problems and study difficulties.
- Career guidance is under the responsibility of two Ministries: the Ministry of Education, Youth and Sport and the Ministry of Labour and Social Affairs, which might contribute to the fragmentation of the system.

### ***Recommendations***

1. Improve teaching and systematically assess the quality of general education in VET programmes, particularly in the apprenticeship programmes. Targeted help should be directed at weak performers.
2. Improve the quantity and quality of career guidance in basic education by:
  - Splitting counselling from career guidance, which would become the responsibility of a 'career advisor'.
  - Introducing a focus on career guidance and more flexibility in the initial training of career advisors alongside better access to good quality in-service training for existing staff.
  - Diversifying forms of career guidance provision.

In the longer run similar reforms should be introduced in career guidance offered in upper secondary VET.

3. Establish clearer procedures and more transparent criteria covering the development of regional education plans. These should strengthen the involvement of employers and give more weight to student preferences in planning the mix of upper secondary provision.
4. Systematically enhance the quantity and quality of workplace training in both apprenticeship and technical programmes through the establishment of a national framework for workplace training. This should involve well-targeted incentives for schools, employers and students and the establishment of national workplace training standards, backed by effective quality assurance.

We welcome the government new initiatives in this direction.

5. Introduce a standardised assessment covering the practical elements in technical programmes.
6. Employers and unions should be more engaged in VET. To this end there should be some simplification and rationalisation in the arrangements for social partners' involvement in VET with enhanced and clearly defined responsibilities for the bodies concerned.



## **Chapter 1**

### **Introduction**

*This chapter describes the OECD policy study of VET, the review of the Czech Republic, summarises the main features of the Czech VET system and sets out an assessment of its strengths and challenges.*

## 1.1 The OECD policy review of the Czech Republic

This is one of a series of reviews of vocational education and training (VET) in OECD countries (see Box 1.1).

### **Box 1.1 Learning for Jobs, the OECD policy review of vocational education and training**

For OECD member countries, a well-skilled workforce is one of the main supports for prosperity and growth. Some skills come from general education, but specific occupational skills are also needed. Typically initial vocational education and training systems have a big part to play in supplying these skills. These systems are now under scrutiny to determine if they can deliver the skills required. Launched in 2007, *Learning for Jobs*, the OECD policy review of vocational education and training, is designed to help countries with this task. The key policy messages are:

#### *To meet labour market needs*

- Provide a mix of VET programmes that reflect both student preferences and employer needs, and beyond secondary level, share the costs between government, employers and individual students according to the benefits obtained.
- Engage employers and unions in curriculum development, providing young people with the transferable skills to support occupational mobility, and the specific skills to meet employers' immediate needs.

#### *To sustain the workforce of teachers and trainers*

- In VET institutions, promote partnerships with industry; encourage part-time working and promote flexible pathways of recruitment for the workforce.
- Provide appropriate pedagogical preparation for trainers of trainees and apprentices in workplaces.
- Adopt standardised national assessment frameworks.

#### *To promote workplace training*

- Ensure there are sufficient incentives to participate in workplace training for both employers and students, and that the training is of good quality, backed by contractual frameworks for apprentices and effective quality assurance.
- Devise effective responses to the current economic crisis, to sustain workplace training, and cope with increased demand for full-time VET.

#### *Develop tools for policy*

- Construct effective mechanisms to engage employers and unions in VET policy and provision.
- Collect good data on the labour market outcomes of VET, and the capacity to analyse that data.
- Provide careers guidance accessible to all, informed by knowledge of labour market outcomes.

### Box 1.1 Learning for Jobs, the OECD policy review of vocational education and training (Continued)

#### Methods and outcomes

The OECD is conducting individual policy reviews in Australia, Austria, Belgium (Flanders), the Czech Republic, Germany, Hungary, Ireland, Korea, Mexico, Norway, Sweden, Switzerland, the United Kingdom (England and Wales), and the United States (South Carolina and Texas). Short reports on Chile and the Peoples Republic of China are also to be prepared. Canada, Denmark, Finland and the Netherlands also provided voluntary financial contributions.

All reviews and working papers are published on the website. Working papers include reviews of previous literature, PISA data on VET, and a study of the effect of the economic crisis. The initial report (Field *et al.* 2009) of the policy review is available on the OECD website. The final comparative report will be published as a book in Autumn 2010.

For further information, publications and contacts [www.oecd.org/edu/learningforjobs](http://www.oecd.org/edu/learningforjobs)

The review follows the standard methodology established for the OECD policy review of VET. Two members of the OECD Secretariat visited the Czech Republic on 9-13 March 2009 for a preparatory visit to assemble information on the characteristics of VET in the Czech Republic and to identify the main policy challenges. Then the Czech authorities were invited to complete a detailed questionnaire focusing on these challenges. Equipped with the responses and other background information, three members of the Secretariat returned on 2-5 June 2009 for a policy visit to conduct further interviews (see Annex A for the programme of visits) in order to develop policy recommendations. This review presents the OECD recommendations, with supporting analysis and data. An earlier draft of this report was submitted to the Czech authorities for verification of factual information.

The review deals with a deliberately limited set of issues where it could draw on international experience or otherwise usefully add value to the domestic policy debate.

The review concentrates on VET in upper secondary education. It does not directly address basic education, the tertiary level, training for the unemployed or adult education, although some recommendations have some relevance to these elements.

## 1.2 The structure of the report

This first chapter places the Czech review of VET in the context of the OECD policy study of VET, presents the structure of the report, describes the main features of Czech VET system, and examines its strengths and challenges. The second chapter proposes policy recommendations.

Each policy recommendation is set out as:

- *The challenge* – the problem that gives rise to the recommendation.
- *The recommendation* – the text of the recommendation.
- *The supporting arguments* – the evidence that supports the recommendation.
- *Implementation* – a discussion of how the recommendation might be implemented.

### 1.3 A snapshot of the system

Education in the Czech Republic is compulsory for those between six and 15 years of age. The majority of students move from basic schools (*základní škola*) to upper secondary education at the age of 15, except 10% (2007/2008) of students who are selected into prestigious general education pathways in gymnasium before the age of 15.<sup>1</sup> The participation rate in upper secondary education is one of the highest among OECD countries; in 2006/2007 96% of 15-18 year-olds were in education. Admission examinations and aptitude tests are commonly used to select students to different pathways. Students with the strongest academic performance usually opt for general tracks preparing for tertiary education, such as gymnasium (*gymnázium*) and lyceum.

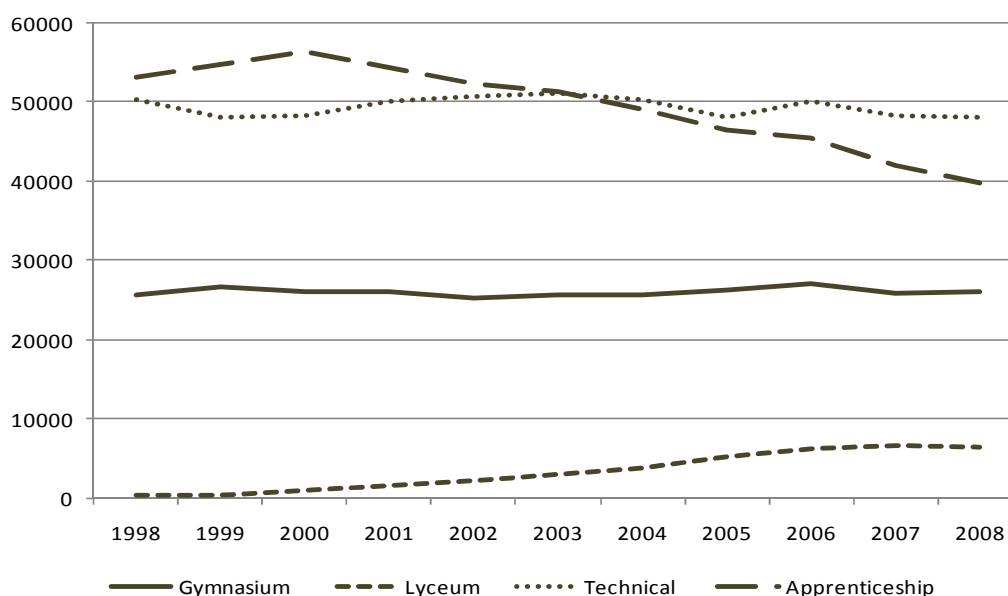
Upper secondary VET includes two main programmes:

- Technical education – four year vocational programmes leading to the maturita exam preparing the student either for the labour market or for tertiary education (*střední odborné školy - SOS*).
- Apprenticeship education mostly over three years, but with some two and four year programmes. In this report we will refer to the three year apprenticeship programme, unless specified differently. The programme ends with an apprenticeship certificate (*výuční list*) providing access to the labour market but without the possibility of direct transition to tertiary education (*střední odborné učiliště - SOU*). Apprentice graduates may take two year follow-up courses that lead to the maturita exam (*nástavbové studium*).

In the last decade enrolment in apprenticeship programmes (all apprenticeship programmes combined) has been falling and the share of students in programmes with the maturita exam has been increasing. In 2008 around two-thirds of students were in upper secondary studies ending with the maturita exam (see Figure 1.1).

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1. First selection is carried out at the age 11/12 and the second when students are 13/14 year-olds. (Eurybase – Czech Republic – (2007/2008), [http://eacea.ec.europa.eu/education/eurydice/eurybase\\_en.php](http://eacea.ec.europa.eu/education/eurydice/eurybase_en.php))

**Figure 1.1 Number of students in their first year of upper secondary education**

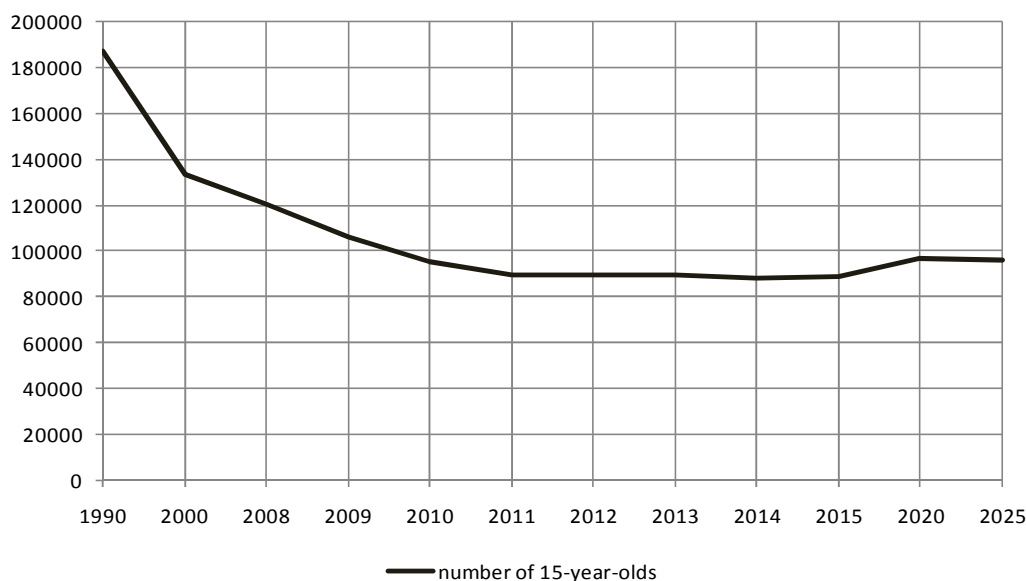
Source: NÚOV (2009).

Apprenticeship programmes (SOU) are available in 18 specialisations (Eurybase, [http://eacea.ec.europa.eu/education/eurydice/eurybase\\_en.php](http://eacea.ec.europa.eu/education/eurydice/eurybase_en.php)). In these programmes students spend 30-35% of their time on general subjects, 20-30% of time on vocational content and 35-45% on practical training provided in a school workshop or in a company. Technical education (SOS) is provided in 26 groups of vocational fields. The general content is more important in technical than in apprenticeship programmes and represents approximately 50% of the curriculum (NÚOV, 2009).

Upper secondary schools are public, private or church-owned. Education in public schools is free; private and denominational schools can collect tuition fees. Private and denominational schools are mainly concentrated in programmes leading to the matura exam. In 2007/2008 while 14% of all upper secondary students were in private schools, for apprenticeship students the comparable figure was 10% (Eurybase, [http://eacea.ec.europa.eu/education/eurydice/eurybase\\_en.php](http://eacea.ec.europa.eu/education/eurydice/eurybase_en.php), NÚOV 2009).

In 1995 a new sector of vocational tertiary education was established (*vyšší odborné školy*). The number of vocational tertiary schools grew rapidly but enrolment remains low with only 7% of tertiary students in this sector (Eurybase, [http://eacea.ec.europa.eu/education/eurydice/eurybase\\_en.php](http://eacea.ec.europa.eu/education/eurydice/eurybase_en.php)).

The number of 15-year-olds has been decreasing steadily since 1990 and will fall further in the next five years. Between 2009 and 2011 it will drop by a quarter, or by around 30 000 persons. Given rising demand for programmes leading to the matura the sharp demographic decline is hitting the apprenticeship sector particularly hard.

**Figure 1.2 Change in the number of 15-year-olds in the Czech Republic from 1990-2025**

Source: Czech Statistical Office data in NÚOV (2009).

In 2001, public administration was decentralised and the operational responsibility for upper secondary education was shifted from central government to the 14 regions. Recent reforms (*e.g.* curricular reform) also grant more decision making powers to schools.

## 1.4 Strengths and challenges

### *Strengths*

The Czech VET system has a number of strengths:

- The average academic level of 15 years-old measured by PISA is good (Figure 2.1c, 6.1c, 6.2c in OECD 2007a, Vol. 2).
- The majority of students complete their upper secondary studies; the dropout rate from this level of education is below the OECD average (Table A2.1 OECD, 2008b).
- The Czech Republic has a very impressive data base on education and labour market outcomes of education, one of the best the OECD team has seen.
- Many reforms have been launched recently, including: the setting up of a new qualification system; the introduction of a national standardised exam in apprenticeship programmes, the launch of a major new adult education initiative, and new tools to improve career guidance.
- The government is actively fostering stronger participation of social partners in VET. Sector Councils provide a good example of the co-operation between social partners and policy makers.

## *Challenges*

At the same time the system faces a number of challenges:

- The performance of students and the quality of teaching in apprenticeship programmes is low in comparison to general and technical programmes leading to the maturita exam.
- Governance of upper secondary VET at regional level lacks the transparency and accountability mechanisms that would ensure a match between labour market demand and student choice, and secure quality standards across the country.
- The provision of training is highly variable in terms of the number of students participating, length and quality; it depends on the sector and individual schools. The participation of companies in workplace training provision is low.
- The institutional system for social partners' involvement in VET is fragmented. Not all VET related areas are subject to social partners' consultation.
- Initial and in-service education and training of upper secondary school counsellors focuses more on pedagogical and psychological counselling than on career guidance. School counsellors combine career guidance with other roles: teaching other school subjects, and providing counselling and guidance for personal problems and study difficulties.
- Career guidance is under the responsibility of two Ministries: the Ministry of Education, Youth and Sport and the Ministry of Labour and Social Affairs, which might contribute to the fragmentation of the system.





## Chapter 2

### Policy recommendations

*The Czech Republic has launched many initiatives to improve its VET system. But despite these very positive recent developments the VET system still faces challenges. To address these issues a set of six interconnected recommendations is proposed.*

*First, the general skills of apprenticeship graduates are poor and their situation on the labour market is fragile. To address this problem we recommend that teaching in VET should be of better quality and systematically assessed. Second, students need better information about their career choices. To this end we propose the creation of a career advisor position. Students will also benefit from the introduction of different channels through which career guidance is provided. Third, regions and schools play an important role in upper secondary VET; therefore a strong management at the school and regional level, and more transparent process of decision making in regions is necessary. Fourth, too few VET students carry out their practical training in companies. In line with the government's own proposals, we suggest establishing a set of incentives to promote workplace training alongside a set of rules to secure the quality of training. Fifth, following the introduction of a standardised assessment in apprenticeship a similar reform should be pursued in technical programmes. Sixth, social partners are the key to workplace training. To facilitate their participation in VET we propose improvements in the current institutional framework for social partners' involvement.*

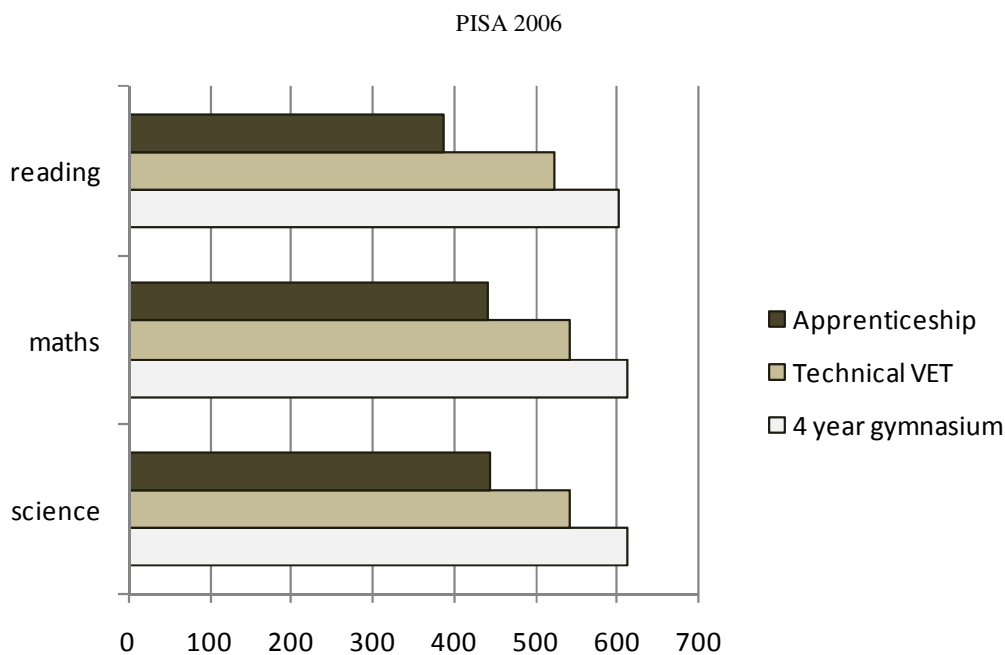
## 2.1 Stronger general skills in apprenticeship programmes

### *Challenge*

*The basic skills of students in apprenticeship programmes are weak*

The basic skills of 15 year-old students in apprenticeship programmes are weaker than those of gymnasium and technical students (see Figure 2.1). Poor reading skills are particularly worrisome. According to the PISA study (Programme for International Student Assessment) students with reading skills comparable with the average level of students in apprenticeship programmes (level 1 on the PISA reading proficiency scale) can only complete the simplest reading tasks without being capable of critical evaluation of written information (OECD, 2007a).

**Figure 2.1 Average performance of upper secondary students**



Source: OECD (2008c).

Czesaná. *et al.* (2007) analysed the result of the IALS survey (undertaken in late 1990s, assessed literacy performance of adults). They report that in the Czech Republic “people with apprenticeship have an insufficient level of functional literacy. In this respect they do not differ much from those who only have basic education” (p.16). They conclude that apprenticeship pathways fail to provide skills that are increasingly required in the modern labour market. Graduates from apprenticeship programmes also perform poorly on the labour market in comparison to graduates of gymnasium and technical programmes (see section 2.3).

### *Poor quality of schooling in apprenticeship programmes*

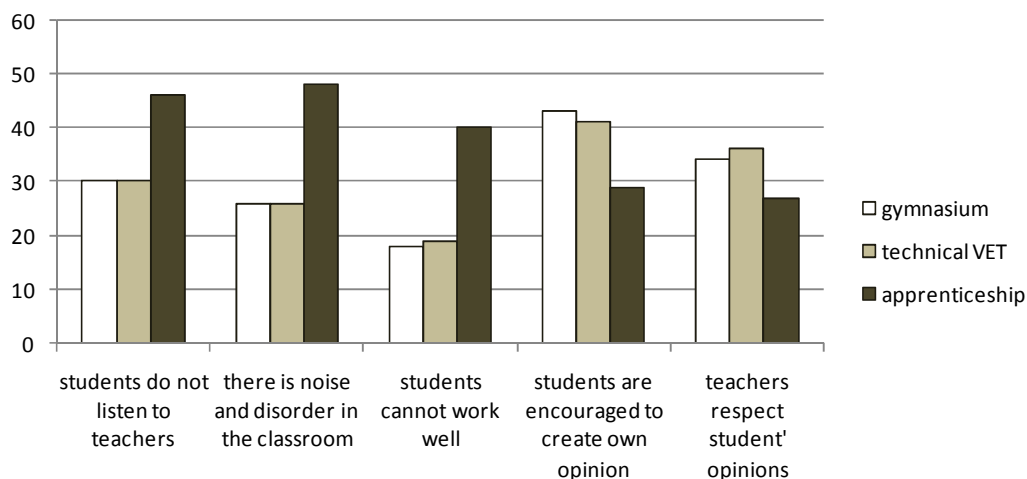
While weaker academic ability might be responsible for the poor results of apprentices in general subjects, it might also be attributed to the quality of schooling in apprenticeship programmes. In other words, students in apprenticeship tracks might have done better had they chosen another programme with stronger general skills training (e.g. technical programmes).

There is some evidence showing that in the Czech Republic the quality of schooling is lower in VET, in particular in apprenticeship programmes, and that the quality of school has an impact on student' performance. Munich (2004) compares the achievement of 18 year old students in gymnasium and in technical education. He concludes that one third of the difference in achievement can be explained by social background and initial skills, but schooling quality explains fully half of the difference. Although this analysis was not carried out for apprenticeship programmes, the findings suggest that it might also apply to this type of education.

PISA assesses the performance of 15 year-olds, in the Czech Republic these are students who are in the first year of upper secondary education.<sup>2</sup> Consequently, the weak performance of students in apprenticeship is primarily the result of education in basic school (*základní škola*) rather than at upper secondary level. However, apprenticeship programmes receive less educational resources<sup>3</sup> than four year gymnasium and technical programmes, are the most likely to suffer from teacher shortages (OECD 2008c) and from an unfavourable classroom climate (see Figure 2.2). This in turn implies that the initial gap in performance in the first year of upper secondary school, as observed by PISA, is likely to widen during the course of upper secondary studies.

**Figure 2.2 Classroom climate in upper secondary programmes**

Percentage of students agreeing with the following



Source: Straková (2007).

2. Around 42% of 15 year-olds Czechs assessed in PISA are still in basic education (ISCED 2) (OECD 2008c).
3. School educational resources include elements such as science laboratory equipment, computers for instruction, internet connectivity, library materials, etc (OECD, 2007b).

Evidence from a number of countries is consistent with the hypothesis of lower quality teaching in apprenticeship programmes in the Czech Republic. It shows that schools catering to students with weak academic performance and disadvantaged family backgrounds (as is the case for apprenticeship programmes in the Czech Republic according to PISA data) tend to have the biggest problems with retaining teachers (Field *et al.* 2007) and retention problems almost certainly reduce the quality of teaching (Rivkin *et al.* 2001).

### ***Recommendation 1***

**Improve teaching and systematically assess the quality of general education in VET programmes, particularly in the apprenticeship programmes. Targeted help should be directed at weak performers.**

### ***Supporting arguments***

Four arguments support this recommendation. First, strong general skills improve labour market performance. Second, Czech employers recognise the importance of these skills. Third, good general skills reduce drop out. Fourth, general skills are necessary for further learning.

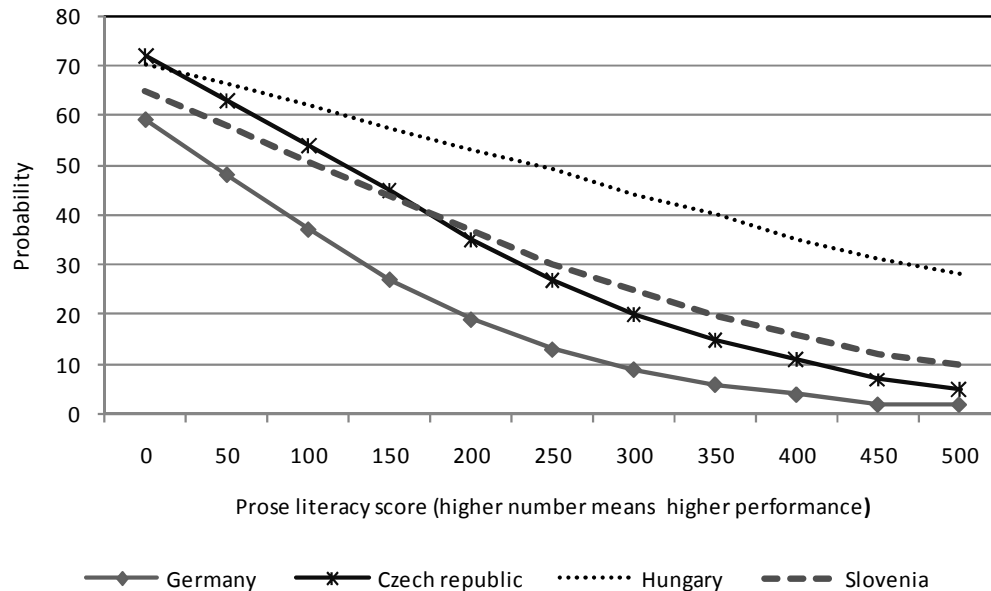
#### *Strong general skills have an impact on the labour market performance*

Strong general skills including numeracy and literacy skills as well as cognitive and non-cognitive soft skills such as communication ability, teamwork, and reliability, are associated with higher earnings and employment rates (Chiswick and Miller, 2002; McIntosh and Vignoles, 2001). The importance of these skills, as measured by their impact on wages, has increased over time, as shown by one American study (Murnane *et al.* 1995). This might be explained by some decline in low skilled jobs and higher skill requirements in different types of jobs. Autor *et al.* (2003) highlight the growing importance of skills such as problem solving (*i.e.* the ability to solve problems that cannot be solved by simply applying rules) and complex communication skills (*i.e.* the ability not only to extract and transmit information, but also to communicate a particular interpretation of it) in an increasing number of jobs, including the blue-collar jobs often targeted by VET.

An international survey of adult literacy (OECD and Statistics Canada, 2000) shows that in a population with similar characteristics in terms of age, gender, education level, the risk of unemployment is correlated with literacy level (see Figure 2.3).

**Figure 2.3 Probability of unemployment and literacy proficiency**

Probability of being unemployed according to prose literacy score, for men aged 16-25 with less than upper secondary education, 1994-1998



Source: OECD and Statistics Canada (2000).

### *Czech employers recognise the importance of basic skills*

Surveys carried out among Czech employers underline the importance of basic skills among apprentices (NÚOV, 2008b). In these surveys employers were asked to evaluate the importance of various competencies, such as communication skills (written and oral), reading and understanding of work-related instructions and problem-solving skills, among graduates with different levels of educational attainment. Expectations were the highest on graduates of university and other tertiary institutions - where employers thought that these high level competencies were indispensable or very important. Expectations towards those with apprenticeships were slightly lower, but still employers thought that it was 'important' or 'very important' that graduates with apprenticeship certificates master these competencies.

### *Good numeracy and literacy skills reduce drop out*

The completion rate in apprenticeship programmes is higher in the Czech Republic than in many comparable countries. For example, in Hungary the dropout rate in the VET programme without the matura exam (which caters to around 25% of upper secondary students) is estimated to be around 35% (Kis *et al.* 2008). But, given that nearly all Czech students obtain an upper secondary diploma (apprenticeship, matura or both), the small proportion who do not might be particularly disadvantaged on the labour market. Apprenticeship students are more likely to drop out than their peers in more academic programmes. For example, in 2008 in one region 98% of gymnasium students completed their studies, 90% of students in technical education, and 86% of students in

apprenticeship programmes (Pardubický kraj, 2008). Reducing drop out in apprenticeship programmes is therefore a significant challenge.

Drop out is the outcome of a complex process, but some research suggests that weak academic achievement might be one cause (Woods, 1995, Rumberger, 2004). In one study students reported that poor results and the ‘feeling of not being smart enough’ led them to leave school early (Kritikos and Ching, 2005). By the same token, improved performance in basic skills can reduce drop out. A study of 18 further education colleges in the United Kingdom (Basic Skills Agency, 1997) followed up more than 4 400 students who were identified at the outset as needing literacy and numeracy support and found that those who received support with basic skills were three times less likely to drop-out than those who did not receive it. The implication is that in the Czech Republic stronger basic skills training in VET programmes would reduce drop out, possibly substantially.

### *General skills are necessary for further learning*

Few apprentices continue their studies in tertiary institutions and nearly 40% of those who do so (through follow-up programmes) drop out in the course of their studies (NÚOV 2009). Poor general skills may be an important barrier in transition to higher levels of education. Those with lower educational attainment – strongly correlated with weak basic skills - are also less likely to participate in adult education (Table C51.a. OECD 2008b). Individuals with weaker skills are less likely to take advantage of learning opportunities, develop their knowledge and acquire new competencies during the life cycle than those with strong basic skills.

## **Implementation**

### *Well-defined targets for improvement of quality of schooling and teaching in apprenticeship programmes*

By international standards upper secondary schools in the Czech Republic enjoy substantial autonomy in the management of their teaching staff. School principals are responsible for school curriculum, decide on the form of education in relation to the requirements of the labour market and the specific needs of students (NÚOV 2008a). According to PISA 2006 data (OECD 2007a) the majority of school principals have the power to hire and to dismiss teachers, and decide on student disciplinary policies. Two thirds of principals establish teachers’ starting salaries and more than half determine teacher salary increases. Principals are also responsible for the further education of the teaching staff. School autonomy is balanced by powers retained by regional authorities, such as the appointment of a head master, acceptance of school provision plans and distribution of funds across schools (Act No. 561 of 24 September 2004).

Better teacher quality is a powerful tool to improve student performance (*e.g.* Rivkin *et al.* 2001; Hanushek *et al.* 2005). In the Czech Republic school principals through the management of their staff can enhance teaching quality and therefore makes a difference in student performance.

The role of the regional authority is in turn to motivate schools to do a good job and to ensure that schools follow regional objectives. If improved performance in general skills were established as a clear goal for vocational schools this would send a strong

signal to schools and school principals that general skills development is important and that their work will be evaluated according to this criterion.

### *Innovative methods of teaching in VET*

VET is sometimes seen as a pathway for those who dislike academic learning and it is not always rewarding to teach more academic skills to such students. These attitudes and perceptions translate into a significant reduction of general education content and/or lower quality in general education in VET programmes. An alternative approach is to use innovative teaching methods to systematically encourage the development of general skills through practical training. This does not necessarily require an increase in instructional time in general subjects but rather more effective teaching and training in the current framework. Box 2.1 describes one successful US example.

#### **Box 2.1 Integrating maths teaching into vocational subjects**

The math in career and technical education (CTE - the term for VET in the United States) approach was developed from the idea that maths is present in all areas of CTE but often implicit to both teachers and students. This approach aims to make maths more explicit as a tool for solving workplace problems and to help improve students' understanding of maths both in and out of context. It was developed by the National Research Center for Career and Technical Education and consists of teacher professional development and a pedagogical framework.

A research study (Stone *et al.*, 2006) tested this model in five occupational areas (agriculture, auto technology, business/marketing, health, and information technology). In the experimental group, each CTE teacher was partnered with a maths teacher to develop CTE activities that would enhance the teaching of maths skills for use in context. They built a curriculum that linked maths concepts to CTE curricula, and developed lessons for implementing these based on a specific pedagogical framework. This framework makes maths concepts in CTE courses explicit by gradually moving from fully CTE contextualised examples to more abstract examples. For instance, learning about the T-square in a carpentry class is an opportunity to teach the Pythagorean theorem.

After one year of maths-enhanced lessons, the students in the experimental group performed better on standardised tests of maths ability. This was not detrimental to the learning of the vocational content – at the end of the year there were no differences between the experimental and control group in terms of occupational or technical knowledge.

More innovative ways of teaching combining theoretical tuition and practical application would be beneficial not only to apprenticeship students but also to students with stronger academic skills in technical programmes. According to Czech employers, connections between theoretical and practical learning, which are crucial in guiding students to self-reliance, independent and critical thinking, are not strong enough in technical programmes (NÚOV, 2008c).

Teachers, including upper secondary teachers, are formally entitled to 12 working days per school year of further education and training (Act No. 563 of 24 September 2004). However the OECD team was told that such training depends on individual school policy. School principals should therefore be encouraged to put a relevant teacher development strategy in place, for example through better use of in-service training, the creation of opportunities for principals and school staff to discuss challenges met by their schools in general skills teaching, to exchange relevant experience and share good

practice (for more information on the relevance of school leadership see Pont *et al.*, 2008).

One Czech study points out the difficulties in introducing innovative methods of teaching in VET programmes. It explains that “schools which attempt to innovate in their teaching approaches often face resentment on the part of teachers, doubts expressed by some parents, lack of support on the part of relevant education authorities and legislative barriers” (Czesaná. *et al.*, 2007). In the face of such obstacles strong leadership at both the school and regional level is necessary.

## 2.2 Better career guidance for informed choices

### *Challenge*

#### *Students do not receive adequate career guidance*

Career guidance in school includes a set of complementary practices that assist students in making educational, training and occupational choices. Following Watts (2009) they can be grouped in three categories:

- **Individual career guidance:** typically conducted on a one-to-one basis, in which attention is focused on the distinctive career issues faced by individuals.
- **Career education:** part of the curriculum in which students learn about the world of work and attention is paid to helping groups of individuals to develop the competences for managing their career development. Often taught in regular classrooms.
- **Career information:** information on courses, occupations and career pathways. Accurate, available and accessible career information underpins both good individual career guidance and career education. Career information can be provided in various formats, increasingly web-based. It supports career services in schools and guidance through informal, out-of-school channels, such as students surfing the web in their free time.

Effective systems of career guidance provide both individual career guidance and career education and are supported by career information available through various channels.

In the Czech Republic most career guidance takes the form of career education. This is integrated into the school curriculum in basic education and upper secondary VET, either as a separate subject or as a subject integrated in others. In addition to such career education students can seek individual career advice from school counsellors. However, this is done on a voluntary basis, and as the visiting team was told very few students use this option. Other formal channels through which students can receive information on their career choices, such as visits to labour offices and local business are possible but not systematically provided.

Delivery of career guidance depends on individual schools and therefore varies greatly. In basic education the broad national curricular guidelines (*rámcový vzdělávací program*) includes the “World of Work” thematic area which provides students with knowledge of the labour market, career opportunities and further educational pathways.



The national curricular guidelines prescribe outcomes that should be achieved in this field and recommend issues to be covered *e.g.* students should learn about the labour market (types of work places, health and personal requirements in different professions), educational opportunities (available vocational programmes at upper secondary level, entrance procedure). Schools are responsible for the delivery of the outcomes but are free to decide how and when they are achieved. They can create a separate subject or integrate the relevant content into other subjects. “The World of Work” is provided in the last three years of basic education (lower secondary education). There is a minimum number of hours that schools should devote to the topic but it is the school head who decides how these hours are distributed over the last three years of basic education, *e.g.* students may receive three hours per week in the last grade or one hour per week from 7<sup>th</sup> to 9<sup>th</sup> grade. (Framework Educational Programme for Basic Education with amendments as at 1.9.2007; [www.msmt.cz/uploads/soubory/zakladni/IM\\_RVP\\_ZV\\_EN\\_final\\_rijen08.pdf](http://www.msmt.cz/uploads/soubory/zakladni/IM_RVP_ZV_EN_final_rijen08.pdf)).

In upper secondary VET the topic “Man and Work” aims to provide students with information about the labour market and professional choices. The topic is not taught separately but merged into other subjects and schools are free to decide when and how it will be provided. There is no minimum time specified that school should devote to it.

Rich and easily accessible labour market data and information on educational options are a strength of the Czech system. NÚOV has developed a labour market information system for both teaching and advising staff and graduates to support them in making career choices ([www.infoabsolvent.cz](http://www.infoabsolvent.cz)). In addition, the Institute has developed learning facilities on issues like how to write a CV, how to behave in a job interview etc. E-learning tools have been made available to train educational counsellors and teachers ([www.ekariera.nuov.cz](http://www.ekariera.nuov.cz)).

### *Weaknesses in the profession of educational counsellors*

There is no specific profession of ‘career adviser’, in the sense of someone whose main profession is to provide advice on career choices. Educational counsellors (*výchovný poradce*), who are responsible for career guidance in basic and upper secondary education, combine different roles. Alongside career advice they take care of the personal and social well being of students (*e.g.* help students with learning difficulties, family and personal problems). Often they also teach other subjects. As a result a majority of them dedicate less than 10% of their workload to counselling activity (career guidance and psychological guidance combined) (NÚOV 2003a). Depending on the number of students in the school the educational counsellor spends one to three hours per week on counselling activities (NÚOV 2003b).

The initial preparation of the educational counsellors at schools focuses on the psychological dimension of counselling. Limited attention is given to guidance on jobs and career opportunities.

In 2003 approximately half the educational counsellors lacked relevant qualifications. Shortages of counsellors might be related to different factors. First, the profession may be unattractive - the OECD team was told it does not enjoy high status. Second, lengthy and costly education for counsellors may put off good candidates. There are two main pathways to become an educational counsellor: first, a university degree in the area of pedagogical and psychological counselling; second, a university degree in another subject supplemented by a two year specialised course for school counsellors. This qualification can only be acquired in approved university level institutions (NÚOV, 2003a). The cost,

particularly in terms of foregone earnings is high for professionals in mid-career seeking counsellor qualifications. The postgraduate programme for counsellors lasts two years and often the cost has to be covered by participants.

The majority of educational counsellors obtained their qualifications before the fall of communism. Clearly, they need training to update their knowledge and skills in line with the economic and social changes observed since then. But participation of educational counsellors in in-service training is low. Although teachers are entitled by law to in-service training (Act No. 563 of 24 September 2004), participation depends on individual school policy, the importance it attaches to career guidance, and on the motivation and willingness of the educational counsellor to take part in further education (NÚOV, 2003b). It is also unclear whether high quality in-service training with a focus on career guidance is easily available.

### ***Recommendation 2***

**Improve the quantity and quality of career guidance in basic education by:**

- **Splitting counselling from career guidance, which would become the responsibility of a ‘career advisor.’**
- **Introducing a focus on career guidance and more flexibility in the initial training of career advisors alongside better access to good quality in-service training for existing staff.**
- **Diversifying forms of career guidance provision.**

**In the longer run similar reforms should be introduced in career guidance offered in upper secondary VET.**

### ***Supporting arguments***

Five arguments support this recommendation. First, good quality career guidance helps in making meaningful choices. Second, the end of basic education is an important transition point for students. Third, career guidance is more effective when provided as a separate profession. Fourth, the skills and knowledge of staff providing career guidance influence its quality. Fifth, information diffused through diversified channels is more likely to reach students.

### ***Good quality career guidance helps in making meaningful choices***

Section 2.3 of this report recommends giving more weight to student choice and modifying VET provision in response. This requires good quality career guidance to provide students with accurate information and the knowledge and skills necessary to make meaningful choices of upper secondary pathway. Despite difficulties with untangling any specific guidance effect from confounding factors many research studies suggest that good quality career guidance develops the career related skills, self

awareness and self-esteem which lead to rewarding choices (Bowes *et al.* 2005; Hughes *et al.* 2002).<sup>4</sup>

### *The end of basic education is an important transition point for students*

The provision of career guidance at the second stage of basic education is not sufficient either in terms of quantity or quality given the importance of the choice made at this level. By the end of basic education (around the age of 14) students choose one of the upper secondary pathways, and within VET programmes they additionally choose an occupational specialisation. The boundaries between upper secondary tracks are clear and reflected in differentiated educational content. Young people can easily descend to a lower status track, but ascent is more difficult (*e.g.* from apprenticeship to technical schools).

One research study (NÚOV, 2003b) suggests that students opting for upper secondary VET are less satisfied with their choices than students going to gymnasium. This may be because gymnasium is seen as a high status option; but it may also reflect lack of information on the career and educational options available to students prior to choosing an upper secondary pathway. Three quarters of gymnasium students agreed that they would choose the same programme again if they could. In technical and apprenticeship schools many students were dissatisfied with their programmes, only 17% of students would definitely choose the same programme again, and 38% would probably do so. The main reasons cited for dissatisfaction with programmes were: lack of interest in the chosen area (22%), the programme was not the one the student wanted to study (20%), change of plans (19%) and teachers' attitudes (17%). Students considering VET tracks may thus be particularly in need of good quality career guidance.

Research studies suggest that career-related skills such as self-awareness and understanding of career opportunities are associated with student performance in school. Higher achievers are readier to seek advice and information and have clearer ideas about their progression (Transition Review Group, 2005). Students opting for VET tracks have fewer career-related skills than those in more academic tracks, so potential VET students might be particularly dependent on the career guidance received.

### *Career guidance is more effective as a separate profession*

In the Czech Republic, career and educational guidance in basic school tends to concentrate on students' progression in education and the choice between the main upper secondary pathways. Academic ability is the main criterion in this process. Students are advised to choose a programme appropriate to their performance and grades. Those with the highest ability are encouraged to apply for general tracks and those with weaker results to opt for VET. The content of career guidance is reflected in the student perception of the educational counsellor role. A survey among basic school students shows that educational counsellors are most helpful in advising on educational opportunities and on testing student ability and interest. In areas such as choice of profession students would turn for advice to persons other than an educational counsellor (NÚOV, 2003b). As a result, it is not clear how much attention and help students entering VET receive with their choices of VET specialisation.

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4. For more information on difficulties in evaluation of the career guidance impact see for example Maguire and Killeen (2003).

Evidence from different countries shows that when advice on career options is combined with counselling related to pupils' learning, behavioural and social problems, the career advice tends to be marginalised (Fretwell and Watts, 2004; OECD 2004a). Fretwell and Watts (2004) suggest two reasons. First, counsellors spend much of their time on the learning and behavioural problems of a minority of students at the expense of helping other students with their educational and occupational choices. Second, when guidance is provided it tends to focus on immediate educational choices rather than longer term career planning. In addition when career guidance is combined with psychological counselling students may be less willing to be seen knocking on a counselor's door since their colleagues and teachers may think that they have serious personal problems; seeking career advice might be therefore stigmatising.

Findings from the Czech Republic are consistent with the international evidence. NÚOV (2003a) observes that the limited time allocated to counselling activities in schools seriously constrains career guidance. To address this problem NÚOV suggested the creation of a separate position of career advisor in addition to the counsellor position dealing with individual and behavioural problems of students. This report supports this proposal.

#### *The skills and knowledge of staff providing career guidance influence its quality*

As in many other countries, parents are the first source of information for Czech students (Bowes *et al.* 2005; Transition Review Group, 2005). In the second place Czech students from basic schools seek advice from their friends, third from 'open doors' events and fourth from the internet. Educational counsellor comes fifth (NÚOV, 2003b). The relatively low reliance on the counselling available in school raises questions about its quality.

The quality of career guidance depends on the skills of career advisors (Bowes *et al.* 2005; Munro and Elsom, 2000). Often counsellors – de facto career advisors, are trained in psychology and pedagogy programmes that provide little training in career guidance; this is particularly common in countries where personal counselling and career guidance are combined. Career advisors need to be well informed about career prospects (including employment opportunities, prevailing wages and working conditions) and educational pathways leading to them. They therefore need to know how to use labour market information and this is often neglected within psychology programmes (Watts, 2009). In the UK, the integration of careers with personally-based services targeting young people at risk has decreased the attention paid to labour market issues in the initial and continuous training of career advisors (Colley *et al.* 2008). Career advisors also need to regularly update their knowledge of the labour market, industry structure and skills requirements in order to provide students with guidance based on up-to-date and accurate information. In-service training is often used for this purpose.

Career guidance, where provided, may be biased towards general education and university pathways to the detriment of VET. The academic bias may be related to the preference of parents and schools for university, reflecting the high status of university education and the jobs it leads to (Rainey *et al.* 2008). The social and educational background of those who provide career advice also counts. One UK study reports that teachers were strongly influenced by their own experience and academic educational background, and in most cases lacked knowledge about apprenticeships and their merits. Often this led teachers to encourage young people to continue along a traditional academic route. While parents, young people and employers all considered

apprenticeship as a genuine possible alternative to academic upper secondary education, very few teachers shared this view (Skills Commission, 2009).

In the Czech Republic the training of educational counsellors is strongly psychological and academically oriented. Consequently, counsellors may have little knowledge and understanding of VET and the professions it prepares for. Currently in-service training is not effectively used to fill these gaps since the participation of counsellors in continuous education is low. Clearly there is room for improvement in the training of the staff responsible for career guidance.

Career education integrated into a broad curriculum puts high requirements not only on the career advisor but also on a wide range of other staff involved in one way or another in career advice provision. There is a risk that career guidance will be neglected if provided as an aspect of other subject. As a result this model requires good co-ordination and school management to ensure that all staff involved are well prepared and that the design of the school curriculum provides career guidance with enough visibility. These demanding tasks exercise pressures on school time and resources. They are a particular challenge in that as evidence from other countries shows, schools often do not have the capacity and expertise to provide young people with good quality career education (National Audit Office, 2004).

To better integrate school counselling into school activities the Czech Republic launched (2005-2008) an initiative of in-service training for school practitioners in counselling (*školsní poradenská pracoviště*). It involved approximately 100 schools, mostly basic schools. One of its objectives was to enhance the co-operation and co-ordination of school staff involved in counselling (NÚOV, 2009). However, the focus was mainly on pedagogical and psychological issues. The quality of career guidance provided in school classrooms is therefore still an issue.

*Information diffused through diversified channels and with various methods are more likely to reach students*

More variety in career guidance provision would increase its reach. Students have different needs and within a wide range of options they are more likely to find one that fits them best, whether it involves one-to-one career advice, exploring web-based information or work experience. Diversification also provides students with different points of view and reduces the risk of bias. In systems where money follows the student and where schools compete for students, there are strong incentives for schools to promote their own programmes, even if it is not in the interest of the student. The nature of the information the student looks for may also colour his or her preferences for the person providing it. Research studies suggest that young people particularly value information on jobs and careers if obtained in a real workplace and through contacts with working people (Transition Review Group, 2005). Conversely, as the Czech experience shows, in matters related to educational choices students tend to trust educational counsellors.

### ***Implementation***

There is no single training programme for those providing career guidance in the Czech Republic. Some universities with programmes for educational counsellors offer

studies covering the teaching of the “World of Work” topic,<sup>5</sup> but this practice is neither sufficient nor systematic. A split of career and counselling services would ideally require the establishment of a separate route leading to career advisor qualifications, or at least the creation of a career guidance specialisation within the current study programme for counsellors.

A qualification system for career advisors would cover not only those in schools but also other professionals involved in career guidance, such as career advisors in employment offices. One of its advantages would be recognition and transferability of career advisor skills within these two institutions, *e.g.* schools could hire career practitioners from employment offices and vice versa. As argued by the OECD study (OECD, 2004a) a competency framework covering all career practitioners also helps to develop progression opportunities for career advisors (including horizontal and vertical ones) and thus to improve the status of the profession.

Education and training for the career advisor position should be provided more flexibly than the current training for educational counsellors. This may include part-time studies, evening classes and a competence-based approach in which prior work experience would be credited. The last approach will be possible when the national qualification framework covers the range of tertiary qualifications. The length of studies should correspond with the time necessary to provide key competencies and skills for the profession. Box 2.2 shows two concrete examples of a programme devised for career advisors.

### **Box 2.2 Education of career advisors in England and Switzerland**

The University of East London offers a Postgraduate Diploma in Career Guidance that can be passed by those with a recognised university degree or equivalent. It can be completed either in one year full-time or in two to three years part-time. It trains people to work with a range of client groups.

The programme covers: theory and practice of career guidance, strategies to promote equal opportunities in a guidance context, labour market studies, education systems, and organisation of guidance structures (OECD, 2004a).

Career guidance counsellors in Switzerland receive a specialised diploma from universities or other publicly recognised institutions. Students at universities have to attend 600 hours of specialised training; students from other institutions 1 200 hours. In addition, all students have to complete a traineeship of 12 months.

The studies include five areas: individual development (learning and developmental psychology); the individual in society (basic knowledge in sociology, law and economics); the individual and the world of work (the education system, education and professional career choice, occupational psychology, the labour market); work methods (diagnostics, career guidance, monitoring, documentation and public relations); professional ethics, professional identity and quality (Schweizer Bundesrat, 2009).

The division of counselling and guidance responsibilities should also be reflected in the school timetable – the hours during which students can seek advice from a career advisor should be separated from time devoted to psychological counselling. This would imply a (desirable) increase in the overall time spent by school staff on career guidance and counselling combined.

5. See for example study text developed at Masaryk University:  
[www.ped.muni.cz/wtech/elearning/Uvod\\_do\\_problematiky\\_volby\\_povolani.pdf](http://www.ped.muni.cz/wtech/elearning/Uvod_do_problematiky_volby_povolani.pdf)

Better use of in-service training requires both stronger participation of career advisors in in-service training, matched to an increase in good quality training. To reinforce the involvement of schools and career advisors in continuous development of career guidance skills, in-service training may become obligatory. Alternatively, a set of incentives promoting in-service training could be developed. School heads, given the level of school autonomy, would play a key role in this scenario. To assist them in this task, guidelines on career guidance standards might be developed at the national level.

Different forms of career guidance provision should be seen as complementary and not alternatives. Box 2.3 describes practices observed in other countries such as short work placements and visits to employment offices.

### **Box 2.3 Linking career guidance to the labour market**

#### **Work placement**

In Norway, nearly all students in lower secondary education, regardless of whether they are or are not intending to enter a VET programme, have one week of work experience in their 9th grade and some further work placement in grade ten. Schools often establish partnerships with local companies to facilitate exchanges between students and employers. Most lower-secondary students in Denmark also have an opportunity to get a flavour of a real work environment. Between the age of 14 and 16 they usually undertake at least two different one-week work placements (OECD, 2002c).

In Germany, Switzerland and Austria students in lower secondary programmes leading to apprenticeships have short work placements in companies. Their purpose is to provide young people with firsthand work experience which would help them to choose their career path and helps them to find an apprenticeship place. Often these short work placements take place during the school holidays but students can also be given free time during the school year to attend them. A survey of around 1 000 secondary school students in Switzerland showed that these short work placements are a most important source of information for their professional career choice. 61% of these young people were offered an apprenticeship place upon completion of the workplace experience (Herzog *et al.* 2004).

#### **Co-operation with employment offices**

In Germany, the Federal Employment Service cover information, guidance and placement services relating to post-school career options: this is designed to complement the school's responsibilities for vocational orientation both within the curriculum and through work-experience programmes, and for guidance on educational choices within the school.

Career advisors from the Federal Employment Service visit the school once every month or two. They usually run one two-hour session with each class in the penultimate year of compulsory schooling, and are also available for further class sessions, for small-group guidance sessions or for short career counselling interviews with individual pupils. Classes are then taken to the service's career information centre (BIZ) where they are given a further lecture and are familiarised with the centre's facilities; they can subsequently re-visit the centre and/or book longer career counselling interviews at the local employment office if they so wish, parents are often encouraged to attend these sessions (OECD, 2002b).

In Austria, the information centers (BIZ) attached to Federal Employment Offices provide half days visit for school groups, normally arranged at the request of school teacher. Visits for schools are also organised by the Economic Chambers. The focus is rather on vocational than academic choices. During these visits students learn about different occupations by being put in real work situations. Information is provided through print and audio-visual materials (OECD, 2002a).

## 2.3 Meeting labour market needs at regional level

### *Challenges*

#### *Lack of transparency in regional governance*

The 14 regions of the Czech Republic have, since 2004, been granted substantial responsibilities and powers over upper secondary education (OECD 2006). The legal framework (Education Act No. 561, 24 September 2004) permits regions, among other things, to allocate grants received from the Ministry<sup>6</sup> among schools according to regionally determined criteria, to accept or reject requests from schools to expand, and to appoint school principals. The 2004 reform also gave more autonomy to individual upper secondary schools. Within nationally set guidelines they can adjust the content of individual programmes, decide on the place where practical training is provided (either in a school workshop or in a company), and set up admission procedures.

For a decentralised system to work well it needs to be transparent and accountable. Much has already been done to this end. The Education Act requires regional authorities to set up long-term educational objectives taking into account demographic and labour market developments and other development goals in the region. Regional authorities and schools draw up annual reports describing what they have achieved and these reports have to be published.

But there is room for further improvement, recognising that regions and schools are still getting used to their devolved powers. Comparison across regions is difficult since regional annual reports and documents on long-term objectives vary in terms of the data presented, and the performance criteria used. Deciding on the mix of VET provision as between different fields of study is one important regional decision where more transparency would be helpful.

The maximum number of students permitted in any particular field of study in a particular school is fixed in the National Register of School and School Facilities. The role of regional authorities in this process is crucial. Changes in the maxima are proposed to the Ministry by regions at the request of a school; some requests from schools already having been rejected by the regions. Normally, the Ministry adopts any proposed changes unless there are flaws in the administrative procedure. But the criteria determining decisions are not always transparent. For example, one regional authority stated in its annual report that requests from schools were evaluated against the needs of regional employers. However, a school was not permitted to open a programme in machinery and electronics (*strojírenská a elektrotechnická zařízení*) even though unemployment among graduates in this field was lower than that of graduates from other fields.

Local partnerships between stakeholders including employer and employee representatives assist local governance, as they help to orientate the attention of local authorities towards initiatives that are useful from the local point of view (OECD, 2004b). In the Czech context it is not clear how well these partnerships are established, whether they include all key stakeholders and how much influence they have on educational policy. In most regions there are Councils of Economic and Social Agreement (*Rady*

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6. The Ministry allocates funds among regions on a per capita basis. The age of the student is the main criterion determining this allocation.



*hospodářské a sociální dohody*) and Regional Councils for Human Resources Development (*Regionální rady pro rozvoj lidských zdrojů*), which include representatives of regions, social partners, employment services, educational institutions, schools, companies and regional agencies. However there is no formal procedure indicating when and how different bodies should be consulted - for example that regional councils of human resources should be consulted at least twice a year. Participating stakeholders are involved on a voluntary basis and their involvement in VET varies across regions (NÚOV, 2008c). The lack of precise rules on local consultation both reduces transparency in the decision-making process and increases the risk that the influence of social partners will be haphazard.

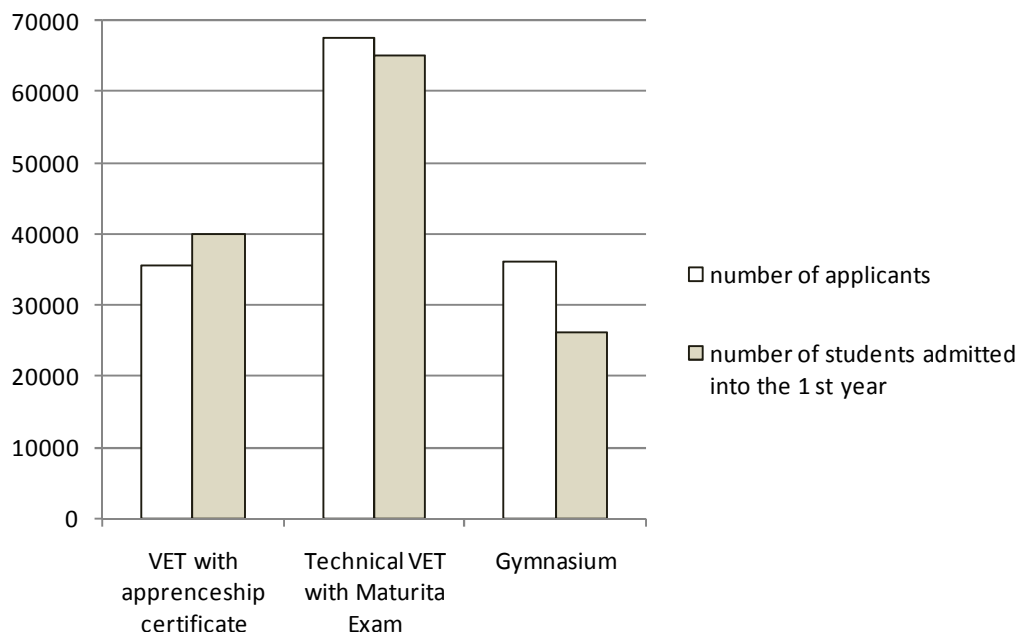
*Student preferences for programme and field of study are not supported by the education system*

Student preferences for different programmes and fields are constrained by the quota imposed on the maximum number of places offered in educational programmes and fields of education and training. At upper secondary level students exercise their choice in two ways. First, the majority of students seek to choose between three large programmes: gymnasium, technical education and apprenticeship. Second, within VET students choose a field of study (*e.g.* in hairdressing, construction, mechanics).

Demand for programmes with maturita exam has been rising over recent years. Currently, demand for gymnasium places is higher than the supply; this is also the case for technical education, but to a lesser extent (see Figure 2.4). Conversely, in apprenticeship programmes there are more places available than students applying. Consequently, some students who do not perform well on the entry exam for gymnasium or technical programmes are diverted into apprenticeship programmes. The restriction on programme expansion therefore applies mainly to programmes with the maturita exam.

**Figure 2.4 Supply and demand in upper secondary programmes**

School year 2008/2009



Source: NÚOV (2009).

As explained in section 1.3, the current sharp demographic decline in the number of teenagers makes it easier for the majority of students to get a place in a programme of their choice. In this context VET schools providing apprenticeship programmes are likely to be substantially undersubscribed. From 2015 the number of young people is forecast to rise slightly (NÚOV 2009) so that the demand for programmes with maturita might also increase.

Within the VET system, the specialisations on offer are limited by the designated number of places which individual schools are permitted to fill. These numbers originated historically (reflecting human resources and physical equipment available in school) and regions tend to adjust them only marginally although they have the power to do so. Given that a substantial part of practical training is provided in schools, changes in provision impose extra costs on schools (related to the cost of new equipment and physical infrastructure). Therefore the provision of VET is heavily driven by VET school capacity.

### ***Recommendation 3***

**Establish clearer procedures and more transparent criteria covering the development of regional education plans. These should strengthen the involvement of employers and give more weight to student preferences in planning the mix of upper secondary provision.**

### *Supporting arguments*

There are three arguments for this recommendation. First, student and parent preferences for programmes with *maturita* may reflect the relatively poor labour market outcomes of apprenticeship programmes, and should therefore be respected. Second, within VET programmes student choice combined with employer needs work best as an indicator of labour market demand. Third clear procedures and criteria for decision-making increase transparency.

#### *Student and parent preferences for programmes with maturita may reflect poor labour market outcomes of apprenticeship programmes*

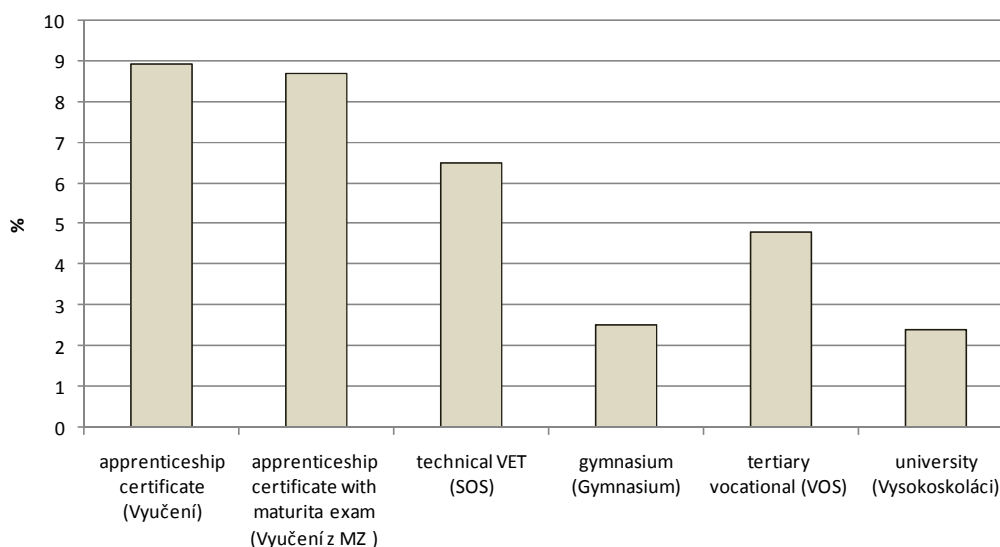
Satisfying student preferences is important for at least two reasons: first, well-informed students choose programmes that correspond best to their abilities and interests leading to better job matches and more satisfying careers; and second, students exert pressure on labour and education markets by avoiding programmes of low quality or programmes leading to unattractive or poorly paid jobs. Across many countries it can be shown that information on labour market outcomes covering matters such as unemployment rates, wages, career opportunities, influences student choice of school programmes (Borghans, De Grip and Heijke, 1996; Skans 2007).

In the Czech Republic sharply rising demand for upper secondary programmes leading to the *maturita* exam (and consequently declining demand for apprenticeships) presents a dilemma since many employers have also been complaining about shortages of vocational and technical skills. In response many regions have promoted apprenticeship programmes, for example through advertising campaigns, and have limited the expansion of gymnasium and technical programmes. The team was told during the visit that VET is often seen as a low status option and, given the growing educational ambitions of young people, it is less and less attractive to them.

The unattractiveness of apprenticeship programmes is almost certainly related to their poor labour market outcomes in comparison with *maturita* programmes and university. Unemployment among new graduates<sup>7</sup> is clearly the highest among graduates with apprenticeship certificates (see Figure 2.5), challenging the employers' assertion that there is a shortage of labour in the apprentice trades.

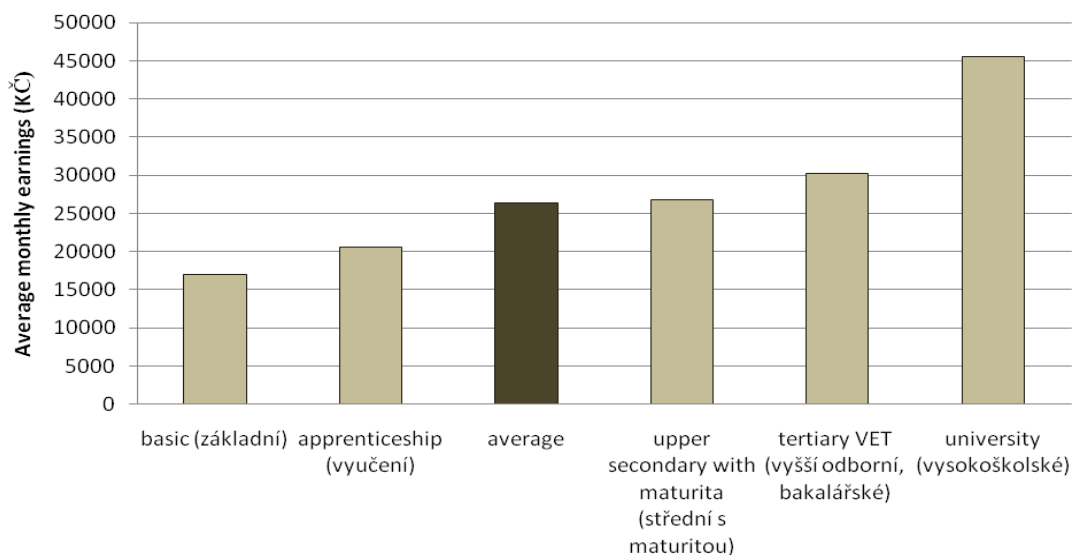
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7. Those above 25 who finished the school not more than two years ago, the age threshold for university graduates is 30.

**Figure 2.5 Unemployment among new graduates, by education level , 2007**

Source: NÚOV (2008b).

Unsurprisingly, those with apprenticeship certificates earn less on average than either those with university education and those with upper secondary education completed with matura exam (see Figure 2.6). Regional governments need to reassess their approach with this evidence in mind, giving more weight to student preferences.

**Figure 2.6 Comparison of monthly gross earnings by level of education attained, 2008**

Source: Czech Statistical Office [from the survey of the ISPV (the Information System of Average Earnings, the Ministry of Labour and Social Affairs) ; [www.infoabsolvent.cz](http://www.infoabsolvent.cz)]

VET may also be unattractive because it leads to low status jobs. In one regional report the fact that many graduates of technical schools enter tertiary education in preference to the labour market was explained in terms of their lack of knowledge of the occupation targeted by their technical programme, alongside unsatisfactory working and salary conditions in the occupation (Moravskoslezský kraj, 2008).

*Within VET programmes student choice combined with employers' needs work best as an indicator of labour market demand*

In deciding on the mix of provision within the VET sector (*i.e.* how many places to provide in different fields of study such as hairdressing, plumbing, etc.) student preference should carry weight. To give students meaningful choices, students need updated, accurate and easily accessible information on available options and their outcomes. Career guidance is an important tool in providing this information (see section 2.2).

But student choice can only improve the match between VET and labour market needs within certain limits. While information on labour market opportunities is an important determinant of students' decisions other factors, such as family background, age, gender, geographical distance and peer pressure, also intervene in the decision-making process (Heckhausen and Tomasik, 2002; Dustman, 2004). Examples from other countries show that systems based entirely on student choice can result in a mismatch between VET and labour market needs. In Sweden, while the mix of provision in upper secondary VET is currently determined mainly by students' preferences, the OECD policy review argued that students' choices are imperfectly matched with labour market needs since the demand for some VET fields (such as in the media programme) remains high despite employers' lack of interest in the skills acquired and poor labour market outcomes. Consequently, the mix of provision should be based both on student preferences and employer' needs. Realising this goal is hard but one way of doing so is through the provision of workplace training indicating employer interest in skills.

Employers can influence the number and mix of places in VET through their willingness to offer workplace training. In some countries provision of VET specialities and workplace training by companies is tightly linked. In Switzerland students cannot start the apprenticeship programmes unless they have workplace training in company secured.

*Clear procedures and criteria for decision-making increase transparency*

Decentralisation, meaning the delegation of decision-making from a central authority to dispersed bodies, assumes different forms. In education, decentralisation often involves not only the empowerment of local bodies but also that of individual schools. The argument for the empowerment of local units is that they can provide education services more efficiently because they have a better understanding of local conditions and needs.

But decentralisation can also make quality assurance more complex and therefore weaker, with quality of provision varying greatly among localities and schools. As a result, a decentralised framework of service delivery requires the local body responsible for education to be accountable both to the central level and to the community (Di Gropello, 2004). Such accountability requires transparency. In order to evaluate work done by regions and schools clear standards are necessary, including expected outcomes and procedures to follow.

Clearer criteria governing the mix of provision at upper secondary level would introduce more transparency and legitimacy in the process, and therefore increase the quality of regional decision-making. Student choice and employer needs expressed through provision of workplace training may be used as one of the main criteria for the planning of VET provision. Regional authorities often have a good overview of the quality of teaching in schools under their responsibility and can use this knowledge to shape provision in individual schools (for example to reward schools that co-operate with employers). But without clear guidelines and standards these decisions are difficult to justify and might be perceived as *ad hoc* or unfair. Conversely, decisions that do not adequately reflect the interest of students and/or employers are more likely in the absence of transparency. Clearly set criteria would also help to identify schools and regions that perform particularly well and that use innovative approaches to improve their performance. This would allow information about good practice to be shared.

Evaluations of decentralisation reforms in education in other countries, such as Poland and Sweden, show that the outcomes of reforms are often positive but that clear standards and objectives for the education system could further improve the functioning of a decentralised system (Herbst 2008; Lundhal 2002). This approach is consistent with the broader principles of good governance in decentralised systems in other areas of public policy (see for example OECD, 2003).

### ***Implementation***

Annual reports from each region, covering the current situation in education systems and educational strategy for the coming years, are available to all citizens in the Czech Republic. Clearer criteria of success in regional education would assist the process by providing a more transparent basis of evaluation. Criteria such as student preference and employer interest in a field of study (measured through their willingness to provide workplace training to students) can be used to evaluate and plan provision in upper secondary education and within VET at regional and school level. Provision in individual VET schools might be decided on the grounds of the improvement of general skills education in apprenticeship programmes, as a means of improving quality in this critical area. Some criteria can be introduced nationally and some can be set by regions to better fit local needs.

Indicators are necessary to establish whether standards are met; usually they include input (*i.e.* available resources) and output indicators (*i.e.* number of graduates, unemployed, etc.). The optimal set of selected indicators is the one that provides a good picture of performance without creating an excessive administrative burden. Achievement of the right balance between these two objectives may be difficult. One option, following the OECD study on regional development policy would be to start with a modest set of indicators and gradually adjust or expand them if necessary (OECD, 2009).

A process of public consultation also requires the involvement of a wide range of stakeholders (*e.g.* employers, trade unions, parents) and guidelines on how it should be pursued. For example, citizens that can at present consult regional documents on the web site might be given the opportunity to comment on educational plans before they are approved by the regional authorities.

## 2.4 More and better workplace training

### *Challenge*

#### *Limited use of workplace training*

Practical training (*odborný výcvik*) represents approximately 35-45% of the instructional time in apprenticeship programmes (NÚOV, 2009). Schools decide whether training is provided in school workshops or in a company and some students receive all their practical training in the school (Education Act No 561, section 65/2).

Similarly, in technical programmes schools are also responsible for the organisation of practical training, and its scope and content is determined by a national educational framework. In technical education at least four weeks of practical training (*praxis*) should include practical ‘hands-on’ experience (on the example of the educational framework for Mechanical Engineering 26-41-M/01), but again schools can provide it either in companies or run it in school workshops (NÚOV, 2008c). Therefore provision of workplace training in apprenticeship and technical VET depends very much on individual schools.

Information on workplace provision in upper secondary VET is not systematically collected, which contrasts with other VET-related areas extremely well covered by data. Available data on the provision of work place training vary depending on the source:

- One Czech study reports that VET students are required to carry out part of their practical training in companies. The authors estimate that only 35% of students in apprenticeship programmes receive any practical training in a company (Czesaná *et al.* 2007). In four year technical programmes around 90% of students do receive training in companies but the majority of work placements last no more than three weeks (Czesaná *et al.* 2007).
- The PISA 2006 survey asked school heads whether their 15 year-old students receive some training in local business as part of school activities. In the Czech Republic, 20% of apprenticeship schools do not offer any kind of training with local employers, in 40% of schools less than half of the student population receive training with local employers and only in 40% of apprenticeship schools the majority of students carry out training with local business. Provision of training in technical VET is even lower, but this might be because in these programmes traineeship is provided to students older than 15 year-olds who are not covered by the PISA study.
- One school survey carried out by NÚOV found that nearly one third of a VET school sample (apprenticeship and technical combined) was not successful in securing some practical training in companies for their students. These results may be overestimated. The questionnaire was sent to 173 VET schools, and only 83 schools responded. It is possible that schools that co-operate tightly with business were more likely to respond. Consequently, the results may be biased towards schools that are more successful in providing their students with workplace training.

The evidence is fragmented, but generally suggests that limited use is made of workplace training in upper secondary VET, including apprenticeship and technical

programmes. This is consistent with what various stakeholders reported to the OECD team during the visits.

### *Quality assurance of workplace training is weak or lacking*

The form of practical training in the workplace is largely determined locally through an agreement signed by a school and an employer (but not the student). (Some aspects of work place training, such as allowances for productive work received by students and safety conditions, are regulated by law). An analysis of two agreements ([http://is.muni.cz/th/173782/pedf\\_b/Priloha01\\_smlouva\\_s\\_partnery.pdf](http://is.muni.cz/th/173782/pedf_b/Priloha01_smlouva_s_partnery.pdf), Spolupráce SOŠ a SOU Kladno, Dubská s firmami: <http://pdp.socialni-partnerstvi.cz/search/browse>) suggests that contractual conditions are highly variable. For example, in one document, legal employment and job relevant skills were the only requirements on trainers; while in another, the school committed itself to train prospective trainers and the employer to nominate trainers out of the pool of previously trained candidates. The quality of training will therefore differ depending on individual schools and employers, so that some work placements may be of excellent quality but others not so.

Schools are also responsible for the quality control of training in companies but there are no requirements regarding how they go about this. Usually, a school teacher visits company premises and students during their training to ensure that the contract agreed between the school and the company is being adhered to. It is unclear whether teachers and employees from the company have enough information and tools to ensure that the training provided meets quality standards and the contractual conditions may in any case preclude such fuller quality assurance.

### *Weak involvement of employers in workplace training*

Insufficient co-operation between schools and business is seen as a challenge both by schools and employers. A survey reveals that in the view of schools, lack of employer engagement is one of the main obstacles to more effective school/business collaboration covering matters such as the alignment of VET content to employer needs and providing students with work experience opportunities or career guidance. In the view of schools, legal obstacles and lack of funds to employers providing training to students may also be responsible for companies' poor engagement in VET (NOUV, 2008c). Employers, for their part, complained about the weak preparation of graduates for work and asked for longer and better quality practical training, and closer co-operation between schools and employers.

This mismatch in school and business expectations may reflect a weak tradition of school-company co-operation since the fall of communism and the absence of appropriate channels through which employers can communicate with policy makers. The lack of appropriate incentives for employers and schools to provide workplace training may be another factor. The Czech employers can deduct from taxable income the costs of training existing employees, but not students (apprentices). As a result, companies may prefer to train newly recruited employees in preference to students/apprentices. This tax arrangement is therefore potentially distortionary.



### *Introduction of measures to increase workplace training*

The government plans to promote workplace training through a set of new measures, including among other things: financial incentives for companies to train, training for trainers in companies, and reinforcement of the social partners involvement in VET (MŠMT, 2008). Many of these measures, such as better quality control, are consistent with the OECD recommendation on workplace training set out below. But some of them, such as the subsidy for training, might need a more thorough evaluation of potential outcomes.

### ***Recommendation 4***

**Systematically enhance the quantity and quality of workplace training in both apprenticeship and technical programmes through the establishment of a national framework for workplace training. This should involve well-targeted incentives for schools, employers and students and the establishment of national workplace training standards, backed by effective quality assurance.**

**We welcome the government’s new initiatives in this direction.**

### ***Supporting arguments***

There are four arguments for this recommendation. First, the economic and labour context favours the expansion of workplace training. Second, it would benefit employers and students. Third, well targeted incentives, including a subsidy and new training contracts might help in increasing workplace training provision. Fourth, clear standards for workplace training both ensure quality and increase provision.

### *The economic and labour context favours expansion of workplace training*

Countries have different approaches to the preparation of young people for the labour market ranging from the dual system, with apprenticeship training built into formal schooling, to the US model, where young people may gain work experience informally outside the school system in part-time jobs and through job rotation (see for example Harhoff and Kane, 1997). Labour market regulation and industry structure are both very important in suggesting which model will be more effective in a given national context.

Workplace training, as part of initial vocational training, may assure greater importance in systems where wages are compressed, and strict labour market protection privileges those already in regular employment. In such a context young people may face difficulties in transferring from school to work unless there are formal pathways leading to employment, such as apprenticeship training. Companies do not provide workplace training unless they see it as beneficial, and recruitment of good employees through training is one strong incentive. Such an incentive is strongest when change of employer is difficult or unattractive and employers can retain carefully selected employees. Conversely, in a deregulated labour market with high job turnover and flexible wages young people may find it easier to obtain their first job – sometimes precarious and temporary jobs. But they may find it difficult to move into more stable employment, and avoid the risk of being trapped in a low skilled, poorly paid or unattractive job. Also, in deregulated labour markets employers may be less keen on providing training in transferable skills as the risk of poaching of a trained employee by other companies is higher.

Other factors such as the level of organisation of social partners (employers and employees representatives) and their involvement in VET are also very important in the design of the VET system (see section 2.6).

In this framework the following factors in the Czech Republic are relevant.

- By international standards, the Czech Republic has strong employment protection for regular workers but little restriction on temporary employment<sup>8</sup> (for more information see for example Baranowska and Gebel 2008). However, “non standard” jobs such as part-time and temporary contracts are rarely used by companies; temporary contracts represent less than 10% of all contracts (OECD statistics <http://stats.oecd.org/Index.aspx>).
- Young Czechs (15-24) tend to stay longer in one job than their counterparts from other OECD countries. In 2007 64% of young Czech workers spent more than one year with one employer, compared with 43% in Denmark, 48% in France, 55% in Ireland and 58% in Germany (OECD statistics, <http://stats.oecd.org/Index.aspx>).
- Large regional differences in the unemployment rate in the Czech Republic suggests that there might be barriers to the geographical mobility of labour (OECD 2008a).
- The engagement of social partners in VET is improving with strong government support (see section 2.6).
- Adult participation in training in the Czech Republic is low by OECD standards (OECD 2008b, Table C5.1a) suggesting that the chances of retraining for those who have left school are low. (This situation may improve as a result of recent initiatives aiming to increase the participation of adults in education and training.)

To sum up, low job mobility, low adult participation in training and low use of non-standard jobs suggest that more workplace training can improve the match between the supply and demand of skills through a better match between graduates and employers prior to signing an employment contract.

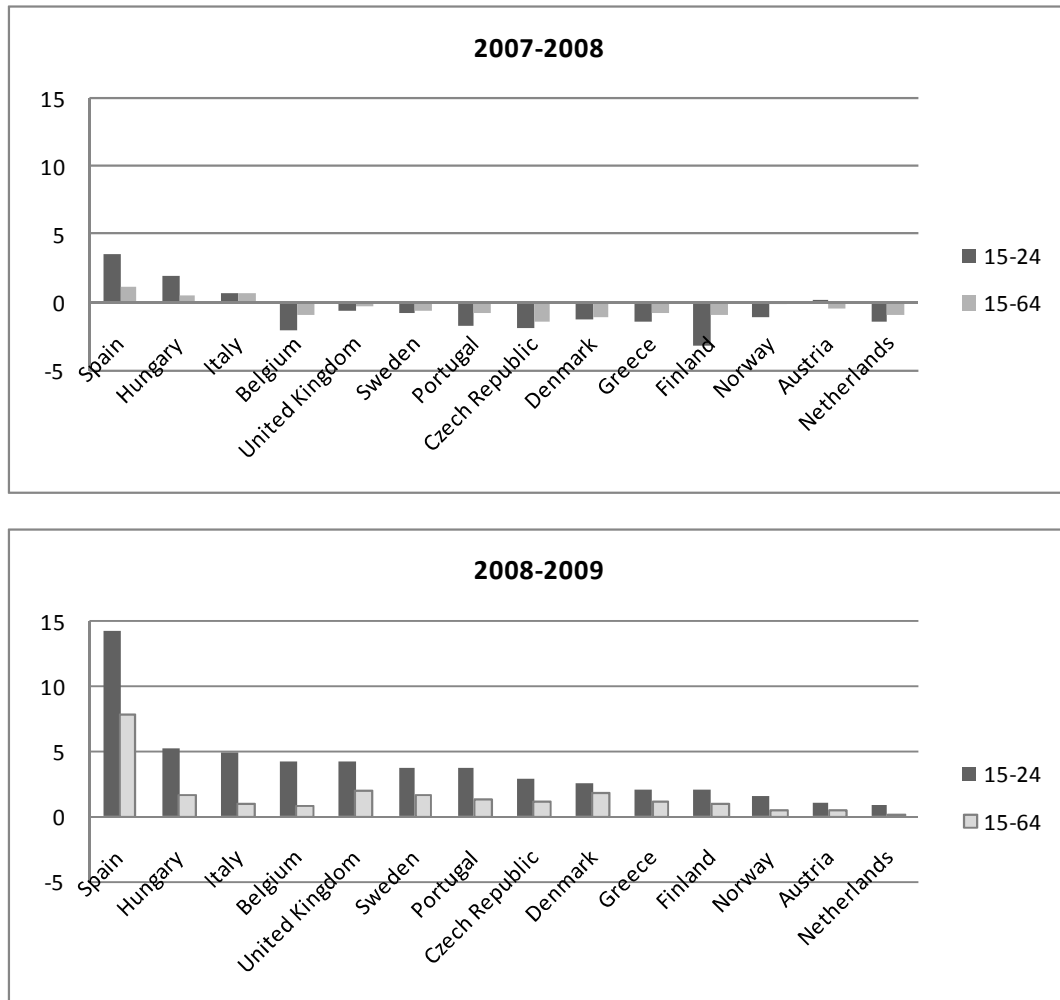
Employer willingness to provide workplace training depends to some extent on the business cycles (for more information see Brunello 2009). The success of a reform aiming to increase the provision of workplace training will therefore be dependent on the economic context. Creating a new system of workplace training is more challenging than maintaining an existing system because during hard times employers might be less willing to commit themselves to untested forms of training with uncertain outcomes.

Unemployment among young Czechs rose significantly over the last year in response to the global economic downturn, but less sharply than in many OECD countries<sup>9</sup> (see

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8. Employment protection legislation (EPL) influences employers’ costs of hiring and firing workers. It is measured in OECD indices that reflect the legislation on permanent employment and temporary employment. Regular employment legislation conveys the rules for hiring and firing procedures concerning permanent workers, notification requirements, and severance payments. Temporary employment legislation regulates the use of temporary contracts, their renewal and maximum duration as well as the functioning of temporary work agencies.
  9. Youth unemployment is more sensitive to the business cycle conditions than is adult unemployment (OECD, 2008a).

Figure 2.7). A sharp demographic decline in the number of school-leavers will partly offset the impact of the crisis on youth unemployment, so despite the downturn employers will still be in need of well trained young graduates.

**Figure 2.7. Change in the unemployment rates between 2007-2008 and 2008-2009**



Source: Eurostat

### *Employers and students would benefit from an expansion of workplace training*

According to one survey most employers regard lack of practical work experience as one of the main reasons for rejecting potential recruits (NÚOV, 2008b). Employers believe that workplace training would help students to obtain a realistic view of the profession, career prospects and working conditions (*e.g.* working hours, remuneration). This is important, given that new graduates know little about the jobs they have chosen (NÚOV, 2008c).

There is abundant international evidence showing that more workplace training in VET programmes is beneficial to students and employers (Field *et al.*, 2009). Skills such

as teamwork and communication are better learned in an authentic work environment. Dealing with an angry client in a hotel or managing tense relationships with colleagues at work are not easily simulated in school workshops (Aarkrog, 2005).

Training in a company, using the most up-to-date technologies and equipment together with the personnel able to handle these technologies, can be cost-effective, as most vocational institutions cannot afford this. One Danish study (Westergaard and Rasmussen, 1999) compares the public cost of apprenticeship and the cost of VET programme provided entirely in school. It found that VET in school is more expensive than VET with workplace training provided by employers, even taking accounting the subsidy received by training companies.

More effective recruitment is one potential benefit of workplace training. Training allows employers to learn about trainees' ability and skills and recruit those they consider the most able. Hiring through training is also less costly than external recruitment (Dohmen, 2007). The benefits achieved from screening potential employees' productivity increase in some labour markets, *e.g.* in markets in which employers can pay salaries below individuals' productivity due to imperfect information flows or high mobility costs (see for example Brunello and De Paola, 2004). For example, given the nature of German labour market regulations reducing apprentices and employees mobility, German companies reap benefits from apprenticeship training by using it to screen potential recruits (Dionisius *et al.* 2008). Companies may also benefit from students' productive contribution during training.

*Well targeted incentives might help in increasing workplace training provision*

#### Effect of the subsidy on schools

The Czech government now plans to offer further incentives to companies that provide workplace training. Under the proposed measure, schools would be able to shift part of their funds (the normative) that would otherwise be spent on practical training in school workshops to employers that provide training. However, schools may find it difficult to make this adjustment as they might not want to or cannot lay off teachers whose teaching and training hours are reduced due to the shift of practical training to companies. The duration of workplace training in companies is negotiated every year between the school and the company and may vary greatly from one year to another. In such a quickly changing context teacher policy is even harder to plan. Also, if practical training takes place in companies, equipment and facilities of school workshops will be underutilised. It follows that schools might not yet have sufficient incentives to make optimal use of workplace training in companies.

Regions might play a more active role in encouraging schools to co-operate with employers by setting the right incentives, for example by maintaining/expanding courses in schools where substantial good quality workplace training has been arranged - rewarding and encouraging success.

#### Subsidy as an incentive for employers

Evidence from different countries shows that a subsidy to employers can increase workplace training provision but only in some situations. One Danish study found that the effect of the subsidy depends on the sector, for example it shows that a subsidy increased

apprenticeships in sectors such as manufacturing, office and trade but not in the construction and restaurant sectors. Other factors, such as company plans to hire new employees, had stronger impacts on apprenticeship creation than the subsidy. This means that most companies demand apprentices bearing in mind future labour needs, the size of the subsidy being of secondary importance (Westergaard-Nielsen and Rasmussen, 1999). A Swiss study (Muehleemann *et al.* 2007) finds that a subsidy would have a large effect on non-training companies but no effect on increase of apprenticeship training in companies that already provide training.

Unlike Switzerland and Denmark employer involvement in VET in the Czech Republic is relatively weak. Czech companies might therefore need stronger encouragement to engage in workplace training. For this reason some financial support to companies might help to stimulate provision of work place training. To find a solution that would best fit the Czech context the results of the new initiative should be evaluated and monitored carefully.

### Training contracts

Training contracts are signed in the Czech Republic by the school and the company, but not the students. This arrangement contrasts with Austria, Denmark, Germany, Netherlands, Norway and Switzerland where the apprentice signs the contract alongside the employer. Of these countries, only in Denmark and the Netherlands does the school also sign the contract (Kuczera, unpublished).

There are good arguments for following the practice of other countries and inviting students to sign the contracts. Apprenticeship training provides an opportunity for students to experience real work, with all the rights and obligations involved. During training students follow the rules that apply to all employees, such as being on time in the morning and respecting security rules, and like other employees, they are paid for their work (the allowance paid to apprentices is usually lower than the skilled worker salary). The terms of training are spelled out in the training contract and by signing the contract students accept its conditions. This helps to develop a sense of responsibility in students and is an important element of initiation into working life.

### *Clear standards ensure the quality of training*

“Standards” of workplace training imply a binding set of rules that define how training is provided: its content and duration, requirements for trainer’ qualifications, and the way in which competences are assessed. Usually they are set nationally with different types of responsibility for localities and schools. Some elements of this framework already exist in the Czech Republic, and the government objective is to develop it further. For example, the new government strategy for the development of workplace training (MŠMT, 2008) clearly aims to reinforce the quality of workplace training alongside its expansion. Binding rules agreed at national level would be a useful addition.

High standards of training in companies ensure that students are not used as cheap labour and can develop broader occupational skills that are transferable to other companies in the same field. The classical economic argument is that firms have no incentives to bear the costs of training for transferable skills in perfectly competitive markets, since these skills may be easily used by an employee in another employer at a higher wage – benefiting the employee but not the company that covered the cost of training. This implies that companies might tend to offer firm-specific rather than general

occupational training. In practice, because of all kinds of market imperfections firms do support some training in transferable skills, but often not enough. To ensure that employers do provide transferable skills to apprentices, the guidelines for workplace training should set out the expected outcomes of workplace training in terms of targeted competencies, including transferable skills.

In the absence of regulation students are exposed to the risk of being used as cheap unskilled labour since students can quickly become productive in low skilled tasks requiring little training. Training of students in a limited range of skills is therefore beneficial to employers in the short term. But this does not necessarily mean that there is a trade-off between the productivity of students and quality of training. Switzerland provides an excellent example of how high quality standards increase the short term benefits of employers. In Switzerland two-thirds of training firms realise net benefits from training by the end of the apprenticeship period. Interestingly, Swiss companies manage to outweigh their costs by allocating apprentices to tasks that would otherwise be carried out by skilled workers (for a comparison of tasks carried out by apprentices in Germany and Switzerland and the impact on companies' cost and benefits, see Dionisius *et al.*, 2008). Swiss companies typically aim to obtain a full return from their investment in apprentices by the end of the training period because high labour force mobility limits the value of apprenticeship as a recruitment tool.<sup>10</sup> Strong quality regulations mean that the provision of workplace training is relatively costly for employers and they have to recoup their investment by having the apprentices carry out high value skilled work (Dionisius *et al.*, 2008).

## ***Implementation***

### *Impact of the workplace reform on public expenditure*

An estimate of the cost of VET provision in this scenario is shown in Table 2.1 recognising that the costs might rise if a quality framework was introduced, as recommended.

Table 2.1 illustrates different patterns of public expenses on apprenticeship training. It shows estimates of government expenses on apprenticeship and the structure of apprenticeship training. It compares the public cost of apprenticeship programme completion per student with some other countries for which data are available. These costs include the cost of off-the-job education and training provided in VET institutions.<sup>11</sup> In countries such as Denmark and Switzerland this will represent the main public cost. In other countries, as in Norway and Austria, government also grants a subsidy to employers providing training to students and this cost is also included in the figures. This would also be the case for the Czech Republic if schools were to shift part of their normative to employers who train students (the estimated public cost of apprenticeship training in this scenario is shown in the table). In Switzerland and the Netherlands training companies can benefit from a tax deduction, but the cost of these indirect financial incentives is

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10. The retention rate of apprentices immediately after graduation is 70% in Germany and 36% in Switzerland (Backes-Gellner and Mohrenweiser, 2006).
  11. In some countries, there might be a fee for the school based component that is paid by an individual or is covered by an employer.

excluded from the figures, as they are difficult to estimate, total costs for Switzerland and the Netherlands may therefore be underestimated.

**Table 2.1 Estimated public expenditure on apprenticeship**

In USD converted using PPP<sup>12</sup> for GDP (reference year in brackets)

	1	2	3
	Average total cost of the programme, per participant	Programme duration (in years)	On-the-job training (% of the programme)
Austria (2006)	15300 - 15900	2-4 (depending on the programme)	80%
Czech Republic (2006)	11200	3	-
Denmark (2008)	19500 - 30000	3.5-4 (typical duration)	40 – 60%
Netherlands (2006)	7100-14000	2-4 (depending on the programme)	60%
Norway (2006)	36000	4	50%
Switzerland (2007)	11600-23600	2-4 (depending on the programme)	70%

Source: Kuczera (2008), “The OECD International Survey of VET Systems: First Results and Technical Report” unpublished.

### *Workplace training standards and quality control*

In the Czech Republic responsibility for workplace training is dispersed across schools, leading to a profusion of different practices and frameworks. To ensure minimum standards the Czech authorities might usefully establish a regulated framework, in particular through national training standards. Such standards would provide guidelines on the occupation-specific skills to be developed in workplace training including soft skills, set out rules for the duration of workplace training and its distribution over the study time and specify requirements for the qualifications of company trainers. Some elements of the standards – such as requirements for the qualifications of trainers in companies – would be cross-sectoral. But some national standards should be developed by sector - separately for every occupational field, in close co-operation with social partners, such standards can then be used as criteria in the quality control of workplace training.

12. Purchasing Power Parity (PPP).

### Box 2.4 Workplace training standards in Germany and Switzerland

In Germany, a training directive specifies the professional competences in the occupation that should be acquired by students during in-company training. These requirements guarantee uniform national standards irrespective of current enterprise needs. The training enterprise draws up an in-company training plan for trainees. This plan must correspond to the training directive broadly but may deviate from it if particular features of company practice require this (Hippach-Scheider, Krausse, Woll, 2007).

In Switzerland, ordinances (*Verordnung über die Berufsbildung*) specify how instruction time should be divided between schools and companies. They also require the establishment of a training plan for each occupational field that defines the curriculum and organisation of in-company training. Training plans are set up by organisations including social partners and accepted by the Federal Office for Professional Education and Technology.

Currently there is no external evaluation of the quality of workplace training against national standards in the Czech VET system. The Czech School Inspectorate (*Česká školní inspekce*) controls the quality of education and practical training provided in schools and school workshops but not in companies.

External quality assessment in workplace training could be introduced either by vesting an existing institution such as the Czech School Inspectorate with new responsibilities or by establishing a new body to control the quality of training provided to students by employers. Social partners clearly need to be involved in the process to develop a sense of ownership and commitment to good quality training, so that quality control would not be seen as externally imposed. Different examples of how quality assurance mechanisms can be internalised by companies are set out in Box 2.5.

### Box 2.5 Quality control of training in companies

In Switzerland, cantons license companies to take apprentices and periodically evaluate provided training against national standards. Cantonal inspectors enter companies to ensure that training received by students is up to the standards. If there a problem is detected, the cantonal staff intervene through coaching to assist the company. The companies see that this is to their advantage, in that if they train the apprentice better, the apprentices do better work for them. Self-evaluation of companies is also encouraged. A list of 28 criteria of good training, prepared in co-operation with social partners, guides companies in their work with students (a full document in the annex, for more information see [www.qualicarte.ch/](http://www.qualicarte.ch/)).

In Denmark, trade committees in which employees and employers are equally represented approve and inspect enterprises that want to take in trainees on the basis of defined criteria. To be approved, an enterprise must have a certain level of technology, and a variety of tasks to be performed to ensure the trainee carries out a full range of occupation related activities (Danish Ministry of Education, 2005).

In Austria, the apprenticeship offices (*Lehrlingsstellen*) that are attached to the chambers of commerce and industry (employer organisations), examine if enterprises are able to offer apprenticeship training with regard to corporate and legal conditions and human resources requirements. They examine and record apprenticeship contracts, and are competent in principle for all issues that are in the interest of the apprentice and training providers. The apprenticeship offices are supported in their work by the apprenticeship and youth welfare units of the chambers of labour (employees organisation). Employee bodies are mandated to defend the interests of apprentices, their main task is to monitor the training provided by employers and to appoint delegates to bodies responsible for apprenticeship. In the exercise of their activities apprenticeship offices are subject to State instruction (ILO, Vocational Education and Training in Austria, [www.ilo.org/public/english/employment/skills/hrdr/publ/009.htm](http://www.ilo.org/public/english/employment/skills/hrdr/publ/009.htm)).



In some countries the management of workplace training is primarily the responsibility of social partners, such as in Denmark and Austria, usually this responsibility is shared between employer and employee organisations. If trade unions cannot play this role, mechanisms to counter balance the influence of employers might be necessary, *e.g.* regional governments might take the lead in quality assurance.

## 2.5 Introducing a standardised assessment in technical programmes

### *Challenge*

A standardised national assessment of practical skills is currently being introduced in apprenticeship programmes. The new assessment evaluates student competencies and knowledge against a set of uniform tasks defined for each occupational field and with comparable (standardised) methods. Previously final assessments were developed individually by schools an approach which duplicated efforts, as well as causing variations in standards across the country. Field groups (*oborové skupiny*) representing the social partners have been actively involved in developing the reform ensuring their support for its implementation. This reform is welcomed.

There is no parallel plan to standardise a final assessment in technical programmes. Currently, students in technical programmes complete their study with the *maturita* exam, which includes Czech language and literature, an optional subject and the vocational subject. The vocational part involves an assessment of theoretical and practical skills and competencies (NÚOV, 2008c).

The final assessment of the vocational part of technical programmes has a number of problems:

- The exam content and assessment methods are established individually by schools, and vary between institutions. In the absence of national standards, the tasks defined for the final exam by individual institutions may fit the facilities in schools, and the knowledge of local teachers, but not reflect wider requirements.
- Consequently, the results are not comparable between institutions, and the certificate therefore provides employers with limited information on the nature and level of graduate preparation.
- The assessment may not adequately reflect the skills needed for the job. All kinds of divergences may emerge as a result of each school defining occupational qualifications in isolation, often without the capacity to precisely assess labour market requirements, and update that assessment regularly in response to changing technologies and work practices.

### *Recommendation 5*

**Introduce a standardised assessment covering the practical elements in technical programmes.**

### *Supporting arguments*

Two arguments support this recommendation. First, standardised assessments are beneficial to both students and employers. Second, they are an accountability tool in a decentralised system.

#### *Standardised assessments are beneficial to both students and employers*

Based on the experience in apprenticeship programmes, the use of a standardised assessment could usefully be extended to cover the practical element of technical programmes. The positive outcomes yielded by the reform of the final assessment in apprenticeship programmes should also be generated in respect of technical programmes.

The government institution responsible for the preparation and implementation of the reform (NÚOV) estimates that the new assessment in apprenticeship programmes will increase the comparability of the results and consequently the transparency of the system, make apprenticeship qualifications more meaningful to employers and provide students with better preparation for the labour market (NÚOV, 2008c).

This view is consistent with evidence from other countries. In Germany, a certificate based on performance in a national assessment is a better predictor of productivity than a diploma obtained in a local assessment (Backes-Gellener and Veen, 2008). Minimum quality standards are more stable in countries with standardised national assessments (Backes-Gellener and Veen, 2008; Wößmann *et al.* 2007). Clarity regarding the content and outcomes of the programme would also facilitate and make more meaningful the student's choice of a VET pathway.

Only 3% of students from three year apprenticeship programmes transit successfully to higher levels of education (NÚOV, 2009).<sup>13</sup> But around half of the graduates from the technical programme continue directly to university or tertiary technical school. It might be asked whether it is worth investing in job-related skills in these programmes, including development of a standardised assessment in practical subjects given that only around half of technical programme graduates enter the labour market immediately. This issue can be addressed in two ways. If there is an agreement between stakeholders that certain vocational subjects should be removed from technical programmes, these pathways can eventually be merged with academic upper secondary programmes such as gymnasium and lyceum. In this case a reform of practical skills assessment would not be necessary. Conversely, in the current context, if practical skills and occupation relevant training are to be provided in technical programmes they should be of good quality, a standardised assessment provides one key support for such quality.

#### *Standardised assessment as an accountability tool in a decentralised system*

A standardised assessment establishes minimum standards for educational decision makers at all levels. Wößmann *et al.* (2007) evaluate the impact of autonomy and accountability on student outcomes in the context of general education. They argue that more local responsibility for content is advantageous as it mobilises local knowledge. But this is balanced by the risk that local actors may favour their own interests at the expense

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13. This number refers to the graduates from three year apprenticeship programmes who completed their upper secondary education in follow-up programmes (31%) and who were admitted to tertiary institutions (11%) (NÚOV, 2009).

of those of students. The study concludes that external assessment neutralises any potential negative effects of local autonomy by regulating any adverse behaviour of local players.

A combination of exam tasks including nationally designed, local and school specific tasks is used by some countries to balance national standards with local and school autonomy. In Germany an apprentice obtains three certificates: the *employer certificate* is a work reference provided by the employer based on workplace performance measured against occupational and training standards. The *school certificate* reflects continuous assessment of the student by the local education institution. Each region (*Land*) includes local elements in this school certificate. The *final certificate* is based on a uniform national examination (the journeyman test), administered to all apprentices, and aims to assess minimum competences (Cedefop, 2008). School-specific tasks are also included in the new assessment in the apprenticeship programmes in the Czech Republic. This is consistent with the power of schools to decide upon a part of educational programme. For example, in car mechanics, three out of fourteen tasks of the practical exam are developed by the school, (as the OECD team was told during the visit).

A standardised assessment can also be a valuable source of information on both student and school performance. Educational authorities may use this information to identify schools, courses and students whose learning results are relatively weak and devise targeted interventions in response. In systems with responsibilities delegated to regions a standardised examination allows outcomes across schools and regions to be systematically monitored so as to ensure that minimum standards are met. In the Czech Republic the results of final exams in apprenticeship and in technical programmes (in vocational skills) might also inform the regional planning of VET provision (see section 2.3).

The function of standardised tests in general academic subjects has been discussed extensively in the education literature. Their general merits are widely accepted but they also involve some risks. One is that students might be taught ‘to the test’ neglecting other important competencies that are difficult to measure. Another is that raw data collected through testing might be used to ‘rank’ the so-called best schools, perhaps resulting in an outflow of students and money (if the system is funded on a per capita basis) from some schools. Often these would be schools with disadvantaged students since their results would usually be lower than those of schools that cater mainly to students from well-educated and more affluent families (see Field *et al.* 2007). While these risks should be kept in mind when establishing and using information from a standardised assessment, they might be less serious in a national assessment of practical skills in vocational and technical programmes in the Czech Republic. Variation in the social make-up of students assessed at the end of upper secondary vocational/technical education in the chosen vocational subject will be reduced by successive selection processes including first the selection to one of the upper secondary tracks and, second, to a specific vocational/technical specialisation.

### ***Implementation***

Reform of the assessment in technical programmes would draw on experience with the introduction of final exams in apprenticeship programmes. This required the development of the infrastructure necessary to assess the tasks prescribed by the national standards across the country. Use of the same methodology, equipment and venues would

decrease both the initial and continuing costs of an equivalent assessment reform in technical pathways.

The assessment reform in apprenticeship programmes was also facilitated by the identification of ‘qualification standards’ setting out the competencies and skills required in the jobs associated with apprenticeship programmes. These standards provide the basis for the final examination tasks which ensure that students’ skills and competencies correspond with labour market requirements. Therefore, the first step in the development of standardised assessments in technical programmes would be the establishment of qualification standards in relevant occupations.

The proposal of a standardised final assessment in technical education raised few objections when proposed to Czech stakeholders and policy makers by the OECD team during the visit. Consensus in this area provides a strong basis for the reform.

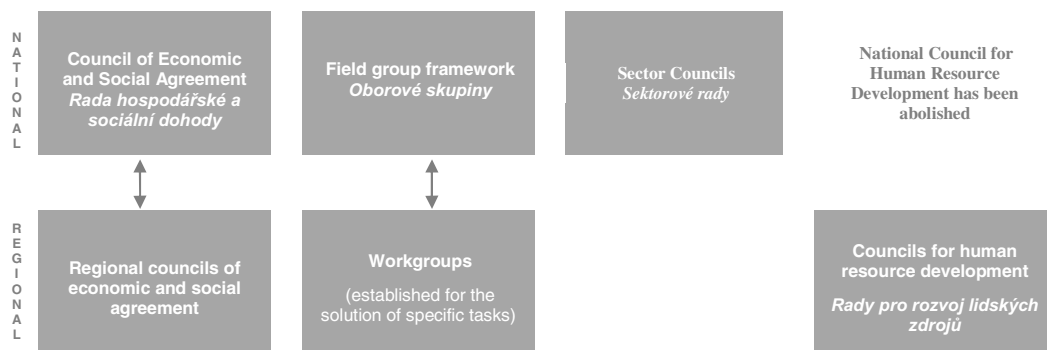
## 2.6 Involving the social partners

### *Challenge*

Political changes and economic transformation after the fall of the communism had a strong impact on the Czech VET system. The state companies that had formerly been the main providers of training to students and of employment to graduates fragmented during privatisation. New owners focused on product lines, customers and financial resources with little attention paid to human resources. These changes were accompanied by an economic slow-down and rising unemployment, which do not always favour employer involvement in training (NÚOV, 2008c). These events pose big challenges to VET policy: to promote co-operation with companies, stimulate a culture of employer involvement in training, and reform the VET system to adapt it to the new situation. Since then impressive progress has been made but employer engagement remains weak. Evidence from many countries shows that a good level of employer engagement is a key component of an effective VET system.

The Czech Republic has made significant progress in engaging employers in VET in recent years; many initiatives designed to encourage the involvement of companies in VET have been launched. But one side effect of this process has been the development of independent and parallel channels for social partners’ involvement in VET. Currently there are three separate channels at national level through which employers and trade unions can communicate with the government on VET matters (see Figure 2.8), among which the field group framework<sup>14</sup> and the sector councils are most important in VET policy.<sup>15</sup> In the regions the Councils for human resource development (*radý pro rozvoj lidských zdrojů*) advise the regional authorities on VET issues. These bodies are connected loosely and informally leaving the system as a whole fragmented.

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14. The framework includes: the Concept group of the Ministry of Education, Youth and Sports (*koncepční skupina MŠMT*), technical associations (*odborne skupiny*), field groups (*oborové skupiny*).
  15. The Council of Economic and Social Agreement is based in the Ministry of Labour and Social Affairs. It deals with education and human resources among other things. The work on education is carried out by the workgroup on education and human resources (NÚOV 2008c).

**Figure 2.8 Framework for social partners engagement**

Source: NÚOV (2008a), *Shift from VET to LLL in the Czech Republic*, NÚOV, Praha

Bodies engaging social partners are often established on a short-term basis since their mission is limited to the time necessary to reach objectives set for the activity. For example, the curricular reform should be completed at the end of this year and this means that the role and tasks of the field groups need to be reassessed in the future.<sup>16</sup>

At national level, consultative bodies in which social partners are involved do not cover all VET related areas. They play an important role in the reform of the curriculum and of the qualification system, but their impact on workplace training is weak. At the regional level the role of Councils for Human Resources Development on VET policy varies across regions. Responsibilities for issues, such as practical training, not regulated at national or regional level are delegated to schools.

### ***Recommendation 6***

**Employers and unions should be more engaged in VET. To this end there should be some simplification and rationalisation in the arrangements for social partners' involvement in VET with enhanced and clearly defined responsibilities for the bodies concerned.**

### ***Supporting arguments***

There are three arguments supporting this recommendation. First, VET systems supported by employers respond better to labour market needs. Second, expansion of workplace training requires social partners' engagement and support. Third, a rationalised framework for social partners involvement would be more effective

### ***VET systems supported by employers respond better to labour market needs***

If social partners are involved in the development of VET policy in the first place they are more likely to participate in VET provision and to recognise and value outcomes in terms of qualifications. This is because through their engagement they have an impact on the VET system and develop knowledge about its content and expected results. Many

16. E-mail exchange with the national co-ordinator.

country examples confirm that engagement of employers in VET reform is a condition of its success. In Norway, dialogue between the authorities and the representatives of employers and trade unions was crucial in the preparation and implementation of a major reform that established the current apprenticeship system (Payne, 2002). Their engagement continued after the completion of the reform, and the social partners have been an inherent part of the VET system and contributed to its development in response to a changing economic and labour market situation. In other countries such as the UK weak employer involvement has undermined reforms in apprenticeship and has been an obstacle to effective policy development in VET (Ryan, 2000; Soskice, 1993; Gleeson and Keep, 2004).

The importance of employer engagement in VET is not questioned in the Czech Republic. All important recent initiatives in the area of VET - such as the reform of the curriculum and the establishment of a qualification framework - aim to involve social partners in the process. Stakeholders encountered during the OECD visit, including policy makers and employer representatives underlined the importance of industry engagement in VET. To sum up, there is political will to co-operate with industry, and some existing structures to facilitate this co-operation. The issue is not how to build a new system for social partners' involvement but rather how to make the current one more effective.

#### *Expansion of workplace training requires social partners' engagement and support*

Consultation with employers on VET issues reinforces their sense of ownership of and their confidence in the VET system since they are guaranteed influence over VET. Greater involvement of industry in VET would also greatly assist the implementation of the other recommendations contained in this report. In particular, employer support is essential to the development of workplace training. As argued earlier in this report there are good reasons for concentrating responsibilities for some elements of workplace training, such as standards of quality control at national level. The national standards can be combined with regional requirements for workplace training, depending on the level of local autonomy. Consequently, national and regional bodies in which social partners are involved should be regularly included in discussions on the VET system.

#### *A rationalised framework for social partners involvement would be more effective*

A rationalised framework for social partners' involvement should be structured in a clear way, and established on a permanent basis to cover all issues relevant to VET policy. This applies to all levels at which VET policy is defined.

A rationalised structure does not mean that consultation should be limited to a single body but that the role of different bodies and their relationships should be explicitly defined. Currently, the interests of employers are represented in a range of institutions with overlapping responsibilities and weak co-ordination. This might weaken employers' position in VET policy-making if employers invest their energy into competing proposals developed and supported by different institutions. A fragmented system will also be more confusing. For policy makers it might not be clear which institution should be the main interlocutor and for employers in which body to engage.

### Box 2.6 Engaging employers and trade unions in Australia, Norway and Switzerland

In *Australia*, the Ministerial Council for Education and Employment (at national level) responsible for VET issues is supported by a range of advisory bodies in which employers are involved. They include: the National Quality Council, National Industry Skills Committee, National VET Equity Advisory Council and Flexible Learning Advisory Group. To provide secretariat support to these bodies the Ministerial Council established a TVET Australia Ltd. This system is currently being reviewed to ensure that the ministerial advisory bodies are aligned with national reforms and to eliminate duplication of efforts (Ministerial Council for Tertiary Education and Employment [www.deewr.gov.au/Skills/Programs/Pages/Ministerial\\_Council.aspx](http://www.deewr.gov.au/Skills/Programs/Pages/Ministerial_Council.aspx)).

In *Norway*, the National Council for Vocational Education and Training advises the Ministry of Education on the general framework of the national VET system. At the national level there are also nine Advisory Councils for VET advising national authorities and the National Council. They are linked to the nine VET specialisations offered in upper secondary VET. One of their tasks is to develop Competence Platforms for each of the specialisation for which they are responsible. This forms the basis for development of national curricula. The Advisory Councils also appoint members of Curriculum Teams and Appeal Boards.

County Vocational Training Boards are appointed by local parliaments, and integrated within County Education Departments. They advise on issues such as the rise of provision in VET, guidance of students and regional development (Utdanningsdirektoratet, 2008).

In *Switzerland* responsibility for vocational education and training is shared by the Confederation (national level), the Cantons (regional level) and professional organisations. Professional organisations include social partners, trade associations and other organisations and VET providers. None of the three bodies may encroach on each other's area of responsibility. Professional organisations have a direct influence on the strategic, conceptual development and content of VET programmes. They work with the Federal Office for Professional Education and Technology (OPET) and the Cantons on the legislation and play an active role in the revision or enactment of VET 'ordinances', establish the course content and prepare VET programmes (Federal Office for Professional Education and Technology/Swiss Confederation, 2008).

Complexity in itself can inhibit employer engagement. For example, the UK system for employers' engagement is complicated: there are many weakly connected institutions and its structure is frequently and radically changed. A survey carried out among employers reports that the majority of them (94%) thought that getting involved in skills policy was important, however only a small number of them were involved at a regional, sectoral or national level. Instead many employers (59%) were engaged informally in their localities. In general, the level of satisfaction with formal institutions was low, around one third of surveyed employers were not satisfied with Sector Skills Councils<sup>17</sup> and Learning Skills Councils<sup>18</sup> or thought they were not relevant to them. Also lack of knowledge about which body to engage was mentioned as a reason for lack of involvement in skills policy (National Audit Office, 2005).

A stable system of consultation with social partners should guarantee continuity, facilitating long-term employer engagement, and planning. On the other hand, within the main framework there should be room for flexibility, for example the development of a

17. [www.e-skills.com/cgi-bin/go.pl/faq/questions.html?keyword\\_uid=74](http://www.e-skills.com/cgi-bin/go.pl/faq/questions.html?keyword_uid=74)

18. [www.lsc.gov.uk/](http://www.lsc.gov.uk/)

new occupational sector might require the establishment of a new sector council that would define competence requirements in this field; also budgetary restrictions provide an argument for cutting down the number of institutions. Box 2.6 displays the form of employers' involvement in other countries. Both the institutional framework and role of different bodies will vary depending on the country's division of responsibilities among different authorities and different levels.

### ***Implementation***

The Czech Republic should modify its system for social partners' involvement to make it more effective. Reorganisation might involve clarification of the mission and role of existing institutions, but also suppression or/and creation of new bodies. In this process two criteria might be taken into consideration. First, an institution should be accepted by social partners. Bodies that speak in the name of companies need to be recognised by the firms they represent as the absence of such recognition can be an obstacle to industry engagement (Gleeson and Keep, 2004). Second, the mission of the institution and its methodology should be supported by social partners. For example if the level of involvement in Sector Councils (*sektorové rady*) is high and if social partners are supportive of them, it might be an argument for reinforcing their role in the system.



## *References*

- Aarkrog, V. (2005), “Learning in the Workplace and the Significance of School-based Education: A Study of Learning in a Danish Vocational and Training Programme”, *Lifelong Education*, Vol. 24, No. 2, pp. 137-147.
- Autor, D.H., F. Levy and R.J. Murnane (2003), “The Skill Content of Recent Technological Change: An Empirical Exploration”, *Quarterly Journal of Economics*, Vol. 118, No. 4, pp. 1279-1333.
- Backes-Gellner, U. and J. Mohrenweiser (2006), “Distinguishing Companies with Different Apprenticeship Training Motivations – Evidence from Germany Establishment Data”, Working Paper No. 7, Swiss Leading House, Economic of Education, Firm Behaviour, Training Policies.
- Backes-Gellner, U. and S. Veen (2008), “The Consequences of Central Examinations on Educational Quality Standards and Labour Market Outcomes”, *Oxford Review of Education* Vol. 34, Issue 5 October 2008, pp. 569 – 588.
- Basic Skills Agency (1997), *Staying the Course. The Relationship between Basic Skills Support, Drop Out, Retention and Achievement in Further Education Colleges*, Basic Skills Agency, London.
- Baranowska and Gebel (2008), “Temporary Employment in Central and Eastern Europe: Individual Risk Patterns and Institutional Context”, MZES, Mannheim.
- Borghans, L., A. De Grip A. and H. Heijke (1996), “Labor Market Information and the Choice of Vocational Specialisation”, *Economics of Education Review*, Vol. 15, No. 1. pp. 59-74.
- Bowes, L., D. Smith and S. Morgan (2005), *Reviewing the Evidence Base for Careers Work in Schools. A Systematic Review of Research Literature into the Impact of Career Education and Guidance during Key Stage 3 and Key Stage 4 on Young People’s Transitions*, Centre for Guidance Studies, University of Derby.
- Brunello, G. (2009), *The Effect of Economic Downturns on Apprenticeships and Initial Workplace Training: A Review of the Evidence*, Paper prepared for the Education and Training Policy Division, OECD, Paris as part of Learning for Jobs: OECD Reviews of Vocational Education and Training; [www.oecd.org/dataoecd/51/41/43141035.pdf](http://www.oecd.org/dataoecd/51/41/43141035.pdf)
- Brunello, G. and M. De Paola (2004), *Market Failures and the Under-Provision of Training*, Paper prepared for the joint EC-OECD Seminar on Human Capital and Labour Market Performance.
- Cedefop (2008), “Detailed Thematic Analysis: Germany. Initial Vocational Education and Training”, [www.trainingvillage.gr/etv/Information\\_resources/NationalVet/Thematic/analysis.asp](http://www.trainingvillage.gr/etv/Information_resources/NationalVet/Thematic/analysis.asp).

- Chiswick, B. and P. Miller (2002), “Schooling, Literacy, Numeracy and Labor Market Success”, Discussion Paper No. 450, IZA, Bonn.
- Colley, H., C. Lewin, I. Mazzei (2008), *The Impact of 14-19 Reforms on Career Guidance in England: Some Early Finding*, Paper presented to the Annual Conference of the British Educational Research Association.
- Czesaná, V. *et al.* (2007), “Achieving the Lisbon Goal: the contribution of VET. Country Report: Czech Republic”, [www.refernet.org.uk/documents/Country\\_Report\\_Czech\\_Rep.pdf](http://www.refernet.org.uk/documents/Country_Report_Czech_Rep.pdf)
- Danish Ministry of Education (2005), *The Danish Approach to Quality, The Danish Vocational Education and Training System*.
- Di Gropello, E. (2004), “Education Decentralisation and Accountability Relationship in Latin America”, *World Bank Policy Research Working Paper 3453*, <http://econ.worldbank.org>.
- Dionisius, R., *et al.* (2008), “Cost and Benefit of Apprenticeship Training – A Comparison of Germany and Switzerland”, Discussion Paper, No. 3465, IZA, Bonn.
- Dohmen, D. (2007), *Economics of Vocational Education and Training: Introduction and Overview*, Institute for Education and Socio-Economic Research and Consulting, Berlin.
- Dustman, C. (2004), “Parental Background, Secondary School Track Choice and Wages”, *Oxford Economic Papers 56*, pp. 209-230.
- Eurybase – Czech Republic – (2007/2008); [http://eacea.ec.europa.eu/education/eurydice/eurybase\\_en.php](http://eacea.ec.europa.eu/education/eurydice/eurybase_en.php)
- Field S., *et al.* (2009), *Learning for Jobs: the OECD Policy Review of Vocational Education and Training. Initial Report*, [www.oecd.org/edu/learningforjobs](http://www.oecd.org/edu/learningforjobs)
- Field S., M. Kuczera and B. Pont (2007), *No More Failures. Ten Steps to Equity in Education*, OECD, Paris.
- Fretwell, D. and A. Watts (2004), *Public Policies for Career Development. Case studies and Emerging issues For Designing Career Information and Guidance Systems in Developing and Transition Economies*, World Bank, Washington.
- Gleeson, D. and E. Keep (2004), “Voice without Accountability: the Changing Relationship Between Employers, the State and Education in England”, *Oxford Review of Education*, Vol. 30, No. 1, pp. 37-63, Routledge.
- Hanushek, E., *et al.* (2005), “The Market for Teacher Quality”, NBER, Working Paper 11154, Cambridge MA.
- Harhoff, D. and T. Kane (1997), “Is the German Apprenticeship System a Panacea for the US Labour Market?”, *Journal of Population Economics*, Vol. 10, pp. 171-196.
- Heckhausen, J. and M.J. Tomasik (2002), “Get an Apprenticeship before School is Out: How German Adolescents Adjust Vocational Aspirations When Getting Close to a Development Deadline”, *Journal of Vocational Behaviour* Vol. 60, pp. 199-219.
- Herbst, M. (2008), “Bottlenecks in the Decentralisation of Education Funding in Poland”, MPRA Paper No. 9291.

- Herzog, W., M. Neuenschwander, E. Wannack (2004), “In engen Bahnen: Berufswahlprozess bei Jugendlichen”, Synthesis 18, Schweizerischer Nationalfonds, Bern/Aarau.
- Hughes, D., *et al.* (2002), *The Economic Benefits of Guidance*, Centre for Guidance Studies, University of Derby.
- Jurajda, S. (2005), “Czech Relative Wages and Returns to Schooling: Does the Short Supply of College Education Bite?”, *Czech Journal of Economics and Finance*, Vol. 55, 2005, č. 1-2.
- Keys, W., *et al.* (1998), *Staying On: A Study of Young People's Decisions About School Sixth Forms, Sixth-form Colleges and Colleges of Further Education*, National Foundation for Educational Research, Slough, Berkshire.
- Kis, V., *et al.* (2008), “Learning for Jobs: OECD Reviews of Vocational Education and Training – Hungary”, OECD, Paris, [www.oecd.org/dataoecd/24/27/41738329.pdf](http://www.oecd.org/dataoecd/24/27/41738329.pdf)
- Kritikos, E., C. Ching (2005), *Study to Access to Education and Training, Basic Skills and Early School Leavers*, on behalf of the European Commission, <http://ec.europa.eu/education/doc/reports/doc/earlyleave.pdf>
- Kuczera, M. (unpublished), *The OECD International Survey of VET Systems: First Results and Technical Report*, OECD, Paris.
- Lundhal, L. (2002), “From Centralisation to Decentralisation: Governance of Education in Sweden”, *European Educational Research Journal*, Vol. 1, No. 4
- Maguire, M. and J. Killeen (2003), *Outcomes from Career Information and Guidance Services*, Paper commissioned jointly by the European Commission and the OECD.
- McIntosh, S. and A. Vignoles (2001) “Measuring and Assessing the Impact of Basic Skills on Labour Market Outcomes”, *Oxford Economic Papers* 3 p. 453-481, Oxford University Press
- Ministerstvo školství, mládeže a tělovýchovy (MŠMT) (2008), *Akční plán podpory odborného vzdělávání*, [www.msmt.cz/vzdelavani/akcni-plan-podpory-odborneho-vzdelavani](http://www.msmt.cz/vzdelavani/akcni-plan-podpory-odborneho-vzdelavani)
- Moravskoslezský kraj (2008), “Dlouhodobý záměr vzdělávání a rozvoje vzdělávací soustavy Moravskoslezského kraje”, 2008, [http://verejna-sprava.kr-moravskoslezsky.cz/sk\\_dokumenty.html](http://verejna-sprava.kr-moravskoslezsky.cz/sk_dokumenty.html).
- Munich, D. (2004), “Estimating the Impact of School Quality, Selection, and Supply on Student’s Achievements: Evidence from the Czech Nation-wide Testing of Youth”, CERGE-EI, Prague.
- Munro, M. and D. Elsom (2000), “Choosing Science at 16: the Influence of Science Teachers and Career Advisors on Student’s Decision about Science Subjects and Science and Technology Careers”, NICEC Project Report, Cambridge: Careers Research and Advisory Centre.
- Muehlemann, S., *et al.* (2007), “An Empirical Analysis of the Decision to Train Apprentices”, *Labour* 21 Vol. 3, pp. 419-441, Oxford.
- Murnane, R., B. Willet and F. Levy (1995) “The Growing Importance of Cognitive Skills in Wage Determination”, *The Review of Economics and Statistics*, Vol. 77, No. 2, pp. 251-266, MIT Press.

- National Audit Office (2005), *Employers' Perspectives on Improving Skills for Employment*,  
[www.nao.org.uk/publications/0506/employers\\_perspectives\\_on\\_imp.aspx](http://www.nao.org.uk/publications/0506/employers_perspectives_on_imp.aspx)
- National Audit Office (2004), *Department for Education and Skills Connexions Service. Advice and Guidance for All Young People. Report by the Comptroller and Auditor General*, [www.nao.org.uk/publications/0304/connexions\\_service.aspx](http://www.nao.org.uk/publications/0304/connexions_service.aspx)
- Národní ústav odborného vzdělávání (2009), Responses to the National Questionnaire, unpublished.
- NÚOV (2008a), *Shift from VET to LLL in the Czech Republic*, NÚOV, Praha
- NÚOV (2008b), *Uplatnění absolventů škol na trhu práce – 2007*, NÚOV, Praha.
- NÚOV (2008c), *Průvodce současným odborným vzděláváním*, NÚOV, Praha,  
[www.nuov.cz/pak/pruvodce-soucasnym-odbornym-vzdelavanim](http://www.nuov.cz/pak/pruvodce-soucasnym-odbornym-vzdelavanim)
- NÚOV (2003a), “Policies for Information, Guidance and Counselling Services, National Questionnaire, Czech Republic”, for the OECD Career Guidance Policy Review,  
[www.oecd.org/dataoecd/53/34/2500586.pdf](http://www.oecd.org/dataoecd/53/34/2500586.pdf).
- NÚOV (2003b), *Výzkum služeb kariérového poradenství a potřeb jeho klientů na základních a středních školách v ČR: Souhrnná zpráva*. Praha,  
<http://vzdelavani.unas.cz/zprava.pdf>.
- OECD (2009), *Governing Regional Development Policy, The Use of Performance Indicators*, OECD, Paris.
- OECD (2008a), *Economic Survey, Czech Republic*, OECD, Paris.
- OECD (2008b), *Education at a Glance*, OECD, Paris.
- OECD (2008c), *VET in PISA: Results from PISA 2003 and 2006*,  
EDU/EDPC/CERI(2008)5,  
[www.oecd.org/olis/2008doc.nsf/ENGDIRCORPLOOK/NT0000362E/\\$FILE/JT03245445.PDF](http://www.oecd.org/olis/2008doc.nsf/ENGDIRCORPLOOK/NT0000362E/$FILE/JT03245445.PDF)
- OECD (2007a), *PISA 2006. Science Competencies for Tomorrow's World*, OECD, Paris.
- OECD (2007b), *Questionnaire Indices for PISA 2006*, OECD
- OECD (2006), *Economic Survey, Czech Republic*, OECD, Paris.
- OECD (2004a), *Career Guidance and Public Policy. Bridging the Gap*, OECD, Paris.
- OECD (2004b), *New Forms of Governance for Economic Development*, OECD, Paris.
- OECD (2003), *Managing Decentralisation, A New Role for Labour Market Policy*, OECD, Paris.
- OECD (2002a), “OECD Review of Career Guidance Policies, Country Note Austria”,  
[www.oecd.org/dataoecd/47/46/2505725.pdf](http://www.oecd.org/dataoecd/47/46/2505725.pdf)
- OECD (2002b), “OECD Review of Career Guidance Policies, Country Note Germany”,  
[www.oecd.org/dataoecd/28/35/1939079.pdf](http://www.oecd.org/dataoecd/28/35/1939079.pdf).
- OECD (2002c), “OECD Review of Career Guidance Policies, Country Note Norway”,  
[www.oecd.org/dataoecd/38/24/1937973.pdf](http://www.oecd.org/dataoecd/38/24/1937973.pdf).

- OECD and Statistics Canada (2000), *Literacy in the Information Age. Final Report of the International Adult Literacy Survey*, OECD, Paris.
- Pardubický kraj (2008), “Výroční zpráva. O stavu rozvoji vzdělávací soustavy v Pardubickém kraji za školní rok 2007/2008”.
- Payne, J. (2002), “Reconstructing Apprenticeship for the Twenty-first Century: Lessons from Norway and the UK”, *Research Papers in Education*, Vol. 17, No. 3, pp. 261 – 292.
- Pont, B., D. Nushe, H. Moorman (2008), *Improving School Leadership, Volume 1: Policy and Practice*, OECD, Paris.
- Rainey, L., et al. (2008), *What Choice? An Evaluation of Career Development Services for Young People*, NCVER, Adelaide.
- Rivkin, S. et al. (2001), “Teachers, Schools, and Academic Achievement”, *Working Paper 6691* (revised), National Bureau of Economic Research, Massachusetts.
- Rumberger, R.W. (2004), *What Can be Done to Reduce School Dropouts?* In Gary Orfield (Ed.), *Dropouts in America: Confronting the Graduation Rate Crisis*, pp. 243-254, Cambridge Harvard Education Press.
- Ryan, P. (2000), “The Institutional Requirements of Apprenticeship: Evidence from Smaller EU Countries”, *International Journal of Training and Development*, Vol. 4, No. 1, Blackwell.
- Hippach-Scheider, U., M. Krausse, C. Woll (2007), *Vocational Education and Training in Germany. Short Description. Cedefop Panorama series:138*
- Skans, O. N. (2007), “School to Work Transition in Sweden” in *Transition Support Policy for Young People with Low Educational Background*, JILTP Report 2007:5, pp. 91-107.
- Skills Commission (2009), *Progression through Apprenticeships*, Skills Commission, London.
- Stone, J.R. et al. (2006), *Building Academic Skills in Context: Testing the Value of Enhanced Math Learning in CTE*, National Research Center for Career and Technical Education, University of Minnesota.
- Soskice, D. (1993), “Social Skills from Mass Higher Education: Rethinking the Company-Based Initial Training Paradigm”, *Oxford Review of Economic Policy*, Vol. 9, No. 3, Oxford University Press.
- Schweizer Bundesrat (2009), *Verordnung über die Berufsbildung* §55-58, <http://www.admin.ch/ch/d/sr/4/412.101.de.pdf>.
- Straková, J. (2007), *Impact of Tracking on Formation of Civic Attitudes of Czech Upper Secondary Students*. Paper presented at Xth European Congress of Psychology, Praha, 3-6.7. 2007a, Praha
- Federal Office for Professional Education and Technology/Swiss Confederation (2008), *Background report, Learning for jobs*, unpublished.
- Transition Review Group (2005), “A Systematic Literature Review of Research (1988-2004) into the Impact of Career Education and Guidance During Key Stage 4 on Young People’s Transition into Post16 Opportunities”, *The Evidence for Policy and*

Practice Information and Co-ordinating Centre (EPPI-Centre) University of London,  
<http://eppi.ioe.ac.uk/cms/Default.aspx?tabid=346>

Utdanningsdirektoratet (2008), *National ReferNet report. On progress in the policy priority areas for Vocational Education and Training – Norway*, Utdanningsdirektoratet, Oslo.

Watts, A. (2009), *The Relationship of Career Guidance to VET*, Paper prepared to the OECD policy review of vocational education and training. [www.oecd.org/dataoecd/20/13/44246616.pdf](http://www.oecd.org/dataoecd/20/13/44246616.pdf)

Westergaard-Nielsen, N. and A. Rasmussen (1999), “The Impact of Subsidies on Apprenticeship Training”, Centre for labour Market and Social Research, Aarhus.

Woods, G. (1995), *Reducing the Dropout Rate*, School Improvement Research Series, Regional Educational Laboratory, [www.nwrel.org/scpd/sirs/9/c017.html](http://www.nwrel.org/scpd/sirs/9/c017.html).

Wößmann, L., *et al.* (2007), *School Accountability, Autonomy, Choice and the Level of Student Achievement: International Evidence from PISA 2003*, Report for the OECD.

**Legal documents:**

Act No. 563 of 24 September 2004 on Pedagogical Staff and on the Amendments to Some Other Acts.

Act No. 561 of 24 September 2004 on Pre-school, Basic, Secondary, Tertiary Professional and Other Education.

Framework Educational Programme for Basic Education with amendments as at 1.9.2007; [www.msmt.cz/uploads/soubory/zakladni/IM\\_RVP\\_ZV\\_EN\\_final\\_rijen08.pdf](http://www.msmt.cz/uploads/soubory/zakladni/IM_RVP_ZV_EN_final_rijen08.pdf)

## Annex A

### Background information

#### 1. Biographical information

**Simon Field** has worked since 2001 in the Directorate for Education, OECD on issues including vocational education and training, equity in education, and human capital. His previous career in the UK civil service included a period heading the division for higher education, evaluation and international issues in the Department for Education and Skills, while in the Home Office he was responsible for creating and leading an Economics Unit, bringing the tools of economic analysis to bear on criminal justice issues. He holds a Ph.D. in philosophy and social policy from the University of Cambridge and an M.Sc. in economics from Birkbeck College, London. He was born and brought up in Belfast and holds joint British/Irish citizenship.

**Kathrin Hoeckel** is a policy analyst in the OECD Directorate for Education where she works on ‘Learning for Jobs’ - the OECD programme of work on Vocational Education and Training. She is responsible for several country reviews and for analytical work on costs and benefits in VET. Prior to this activity, Kathrin worked on the issue of school leadership (*Improving School Leadership*, 2008) and took part in writing the final comparative report and disseminating the findings of a thematic review on adult learning (*Promoting Adult Learning*, 2005) at the OECD. Before joining the OECD, she worked in the field of development co-operation, inspecting and evaluating development projects of local NGOs in Morocco (including on special education and vocational education and training) and carried out a research project with field visits on post-war reconstruction and state-building in Lebanon. Kathrin holds a M.Sc. in history and political science from Munich University (Germany) and a Master’s degree in public administration from the London School of Economics and Political Science. Kathrin is of German nationality.

**Małgorzata Kuczera** is a policy analyst in the OECD Directorate for Education where she works on ‘Learning for Jobs’ - the OECD programme of work on Vocational Education and Training. She is responsible for country reviews of China, the Czech Republic, Korea, Norway, the United States (South Carolina) and Sweden and for analysis of the comparative characteristics of VET systems, and has presented the results of this work in many international contexts. Prior to this activity, she co-authored the OECD review of equity in education *No More Failures. Ten steps to Equity in Education*. Before joining the OECD she worked on the issues of equity and efficiency in education at the European Commission. She has an M.Sc. in political science from Jagellonian University, Poland, and a Master’s degree in International Administration from the University Paris I, Sorbonne-Panthéon. She is from Poland.

## 2. Programme of the review visits

### *Preparatory visit, 9-13 March 2009*

#### **Monday 9 March, Prague**

Meetings with officials from the Ministry of Education Youth and Sport (MŠMT)

Meetings with officials from the Ministry of Labour and Social Affairs (MPSV)

Meeting with a representative of the Ministry of Finance

#### **Tuesday 10 March, Prague**

Meetings with experts from the Institute for Information in Education (ÚIV)

Meeting with researchers

Meeting with experts from National Institute of Technical and Vocational Education (NÚOV)

#### **Wednesday 11 March, Kladno, Prague**

Visit to a vocational school in Kladno

Visit to a vocational school in Prague

#### **Thursday 12 March, Prague**

Meeting with employers and trade unions representatives

Meeting with experts from NÚOV

#### **Friday 13 March, Prague**

Meetings with officials from MŠMT

Meeting with VET experts from NÚOV



***Policy visit, 2-5 June 2009*****Tuesday 2 June, Pardubice**

Visits to two VET schools  
Meetings with regional authorities and local employer representatives

**Wednesday 3 June, Prague**

Meeting with officials from MŠMT  
Meeting with officials from MPSV  
Meeting with a representative of the Ministry of Agriculture  
Meeting with experts from NÚOV  
Meeting with representatives of TREXIMA  
Meeting with a representative of the Institute for Pedagogic and Psychological Guidance  
Meeting with experts from ÚIV

**Thursday 4 June, Prague**

Meeting with officials from MŠMT  
Meeting with a representative of the Ministry of Agriculture  
Meeting with experts from NÚOV  
Meeting with representatives of regional authorities: Zlín and Ústí regions  
Meeting with representatives of employers: Chamber of Commerce of the Czech Republic, Institute of the Industry Association, Confederation of Industry of the Czech Republic

**Friday 5 June, Prague**

Meeting with officials from MŠMT and NÚOV experts

## Annex B

### *Qualicarte in Switzerland*

Company/institution.....

Date .....

Name of supervisor.....

Assessment

- - does not meet criteria - partially meets criteria

+ meets criteria (there is room for improvement)

++ meets criteria well

Quality indicators	Assessment				Notes
	-	-	+	++	
<b>Hiring:</b> The receiving company/institution establishes the conditions of hiring.					
1. The criteria defining the expected profile of the apprentice are announced.					
2. Interviews are conducted with the applicants, in addition to other recruitment tools.					
3. “Taster apprenticeships” (short periods allowing potential apprentices to learn about the job) are organised.					
4. The results of the application process are communicated clearly.					
5. Information is provided on working conditions.					
6. The terms of contract are explained to the apprentices.					

<b>Starting the training:</b> A special programme is prepared for the initial period spent in the company/institution.					
7.	The persons responsible for the apprenticeship are designated.				
8.	The apprentice receives a personal welcome.				
9.	Information is provided on the activities of the company/institution and the relevant industrial field.				
10.	The apprentices are informed about work, security, health and hygiene regulations.				
11.	A workplace equipped with the necessary tools is available to the apprentice.				
12.	The apprentices are informed about the importance of the training plan (methodological guide, apprenticeship plan etc.).				
13.	There is a regular dialogue between the apprentice and supervisor during the probationary period. At the end of the probationary period a training report is written together with the apprentice.				
<b>Training:</b> The company/institution helps the apprentice acquire competences required in the labour market and takes the time to provide training and progressively transmit their knowledge and skills.					
14.	The training of the apprentice provided by supervisors is embedded in the company/institution.				
15.	The training plan and other tools to support learning are used in an interactive way.				
16.	The supervisor defines clear and measurable objectives.				
17.	The different working methods and procedures are planned, demonstrated and explained.				
18.	Tasks carried out by the apprentice are subjected to qualitative and quantitative control.				
19.	The apprentice progressively becomes involved in the company's activities, with increasing autonomy.				
20.	The performance of the apprentice in the VET school and industry courses is taken into account and discussed.				

21. The supervisor supports each apprentice according to his/her potential and needs.					
22. The supervisor prepares a training report at the end of each semester, according to relevant regulations (“ordinances”).					
23. The supervisor takes into account the feedback received from the apprentice as much as possible.					
<b>Responsibility of the training company/institution:</b> The company/institution is engaged and collaborates with all those involved in the training.					
24. If the apprentice has difficulties, the supervisor contacts his/her parents, school or relevant VET office.					
25. If there is a risk of breaking off the apprenticeship contract, the training company/institution immediately informs the relevant authorities.					
26. The departure of the apprentice is in order.					
27. The supervisor continuously updates his/her skills needed to support apprentices.					
28. The company/institution provides the supervisor with the necessary time, financial and material resources.					

Objectives	Deadline

The supervisor (name and signature) .....

For the company/institution (name and signature).....

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